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The Navajo Yearbook began as an annual report to relate progress in carrying out provisions of the Navajo-Hopi Long Range Rehabilitation Act (P.L. 474 - 81st Congress), but the scope has been expanded to include all programs conducted on the reservation. This volume, the eighth in the series, is designed to reflect changing problems, changing programs, and overall progress toward realization of the objectives of the Act, and provides specific information with reference to the period 1959-61. Categories include those programs aimed primarily at solving economic and social problems of education, health, and welfare, and facilitating programs such as road construction. The purpose of the yearbook is to meet the need for information in consolidated form for program coordination. (JH)

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THE NAVAJO YEARBOOK

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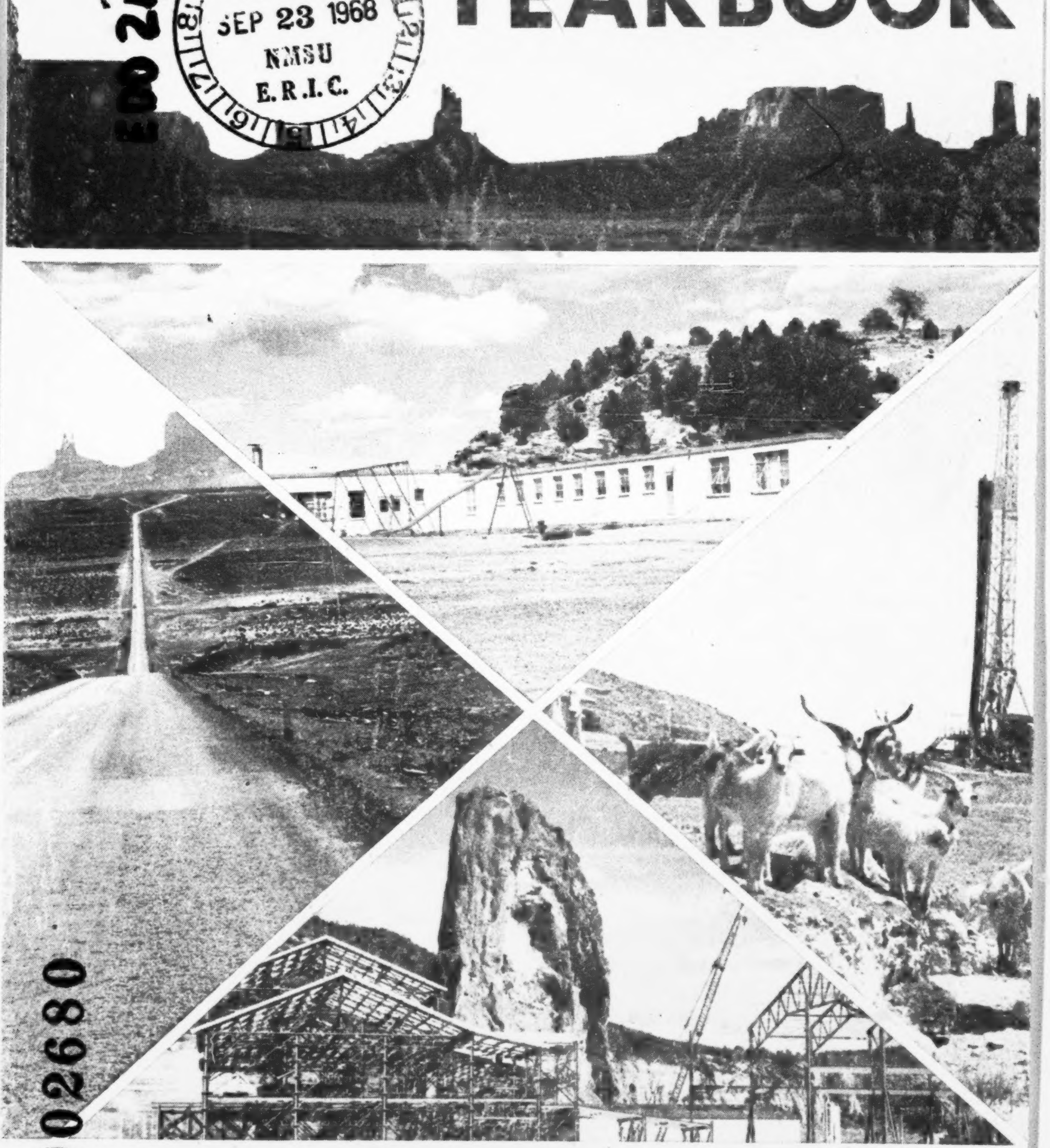

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Report No. viii

1951-1961 A DECADE OF PROGRESS

Dedicated to the Memory of
WILLARD W. BEATTY
Born September 17, 1891, died September 29, 1961;
Philosopher, Educator, Staunch Friend of the Navajo
and of Indian people everywhere.

DEPARTMENT OF THE INTERIOR
STEWART L. UDALL, *Secretary*

BUREAU OF INDIAN AFFAIRS
PHILLEO NASH, *Commissioner*

GALLUP AREA OFFICE
W. WADE HEAD, *Area Director*

NAVAJO AGENCY
GLENN R. LANDBLOOM, *Gen'l Supt.*

1961

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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THE
NAVAJO YEARBOOK

Compiled, with Articles
By
Robert W. Young
Assistant to the General Superintendent

Navajo Agency
Window Rock, Arizona

1961

Preface

The Navajo Country constitutes the largest Indian Reservation in the United States, encompassing about 24,000 square miles of rugged, semi-arid territory in the states of Arizona. New Mexico and Utah. The area is thus about the size of the state of West Virginia (24,181 square miles), and although the number of inhabitants is far below the population of even the smallest state, the Navajo represent the largest Indian Tribe in the nation. Further, and despite a complex of social and economic problems engendered by the Reservation environment, the Tribe is one of the most rapidly increasing segments of the American population.

For nearly a century the Federal Government, and in more recent years the State and the Tribal Governments, have concerned themselves to varying degrees and in a variety of manners, with the solution of Navajo problems. Many programs have been, and continue to be, conducted by these several agencies for the fundamental purpose of assisting members of the Tribe to make successful adaptations to changing conditions of life. Programs include those categories aimed primarily at the solution of social problems (education, health and welfare); those concerned principally with economic problems (irrigation construction, soil and moisture conservation, realty and other resources development activities, as well as job placement, industrialization, and relocation); and facilitating programs of various types, including road construction.

The several branches of the Bureau of Indian Affairs, the U. S. Public Health Service, the State Employment Services, the State Departments of Public Instruction and of Public Welfare, and agencies of the Tribal Government itself, are individually occupied with the conduct of their several specialized facets of the total Reservation program. The sum total of these specialized facets constitute the effort in its entirety, and although each of them from a functional viewpoint, may be regarded as an independent entity, their essential interdependence and community of purpose become apparent upon careful consideration. Thus, although there are superficial distinctions, there is no sharp line of demarcation between the several aspects of the Navajo school program, whether operated by the Bureau of Indian Affairs, the states or the missions; neither is there a total separation of interest and effect between health and education programs, nor between these and resources or other economic development programs. Basically, all are aspects of a joint effort to improve social and economic conditions in the Navajo Country.

There is an urgent need that employees and agencies active in the conduct of Reservation programs regard their individual role in the broadest possible sense, and that they acquire sufficient historical and cultural background information to permit a full understanding of Navajo problems. Few of these can be understood divorced from their historical and cultural context.

The Navajo Yearbook is published and distributed to employees and agencies active in the conduct of Reservation programs in an effort to meet, at least in part, the need for information in consolidated form and the need for program coordination. It is, we believe, valuable to new employees as an aid to orientation, as well as to others as a manual containing statistical and descriptive data that are not generally available without exhaustive research.

Glenn R. Landbloom
General Superintendent
Navajo Agency

Foreword

The present volume is the eighth in a series which began as an annual report of progress achieved in carrying out the provisions of the Navajo-Hopi Long Range Rehabilitation Act (PL 474 - 81st Congress). To meet the need for a manual of general information regarding the Navajo, the scope of the report was expanded after 1954 to include all programs conducted on the Reservation, irrespective of agency, and irrespective of the fact that many are not aspects of the Long Range Act. In addition, the problem areas for solution of which programs are conducted by the Bureau of Indian Affairs, the U. S. Public Health Service, the Navajo Tribe and others, were defined and described against the background of history and Navajo culture.

After 1954, the document was given the title of the Navajo Yearbook, on the premise that it would be revised annually. However, and despite the fact that the title is retained, it has not been possible to publish it each year as an annual report of progress.

The present edition provides specific information with reference to the period 1959-61, thus bringing up to date the report published in fiscal year 1958 (Report No. VIII). However, the Long Range Act provided, under Section 2, that the authorized program "be prosecuted in a manner which will provide for completion of the program, so far as practicable, within ten years from the date of enactment" (April 19, 1950). The decade in reference came to an end in 1960, and the present *Yearbook* report is therefor designed to reflect changing problems, changing programs, and over-all progress achieved across the 10-year period toward realization of the objectives of the Act.

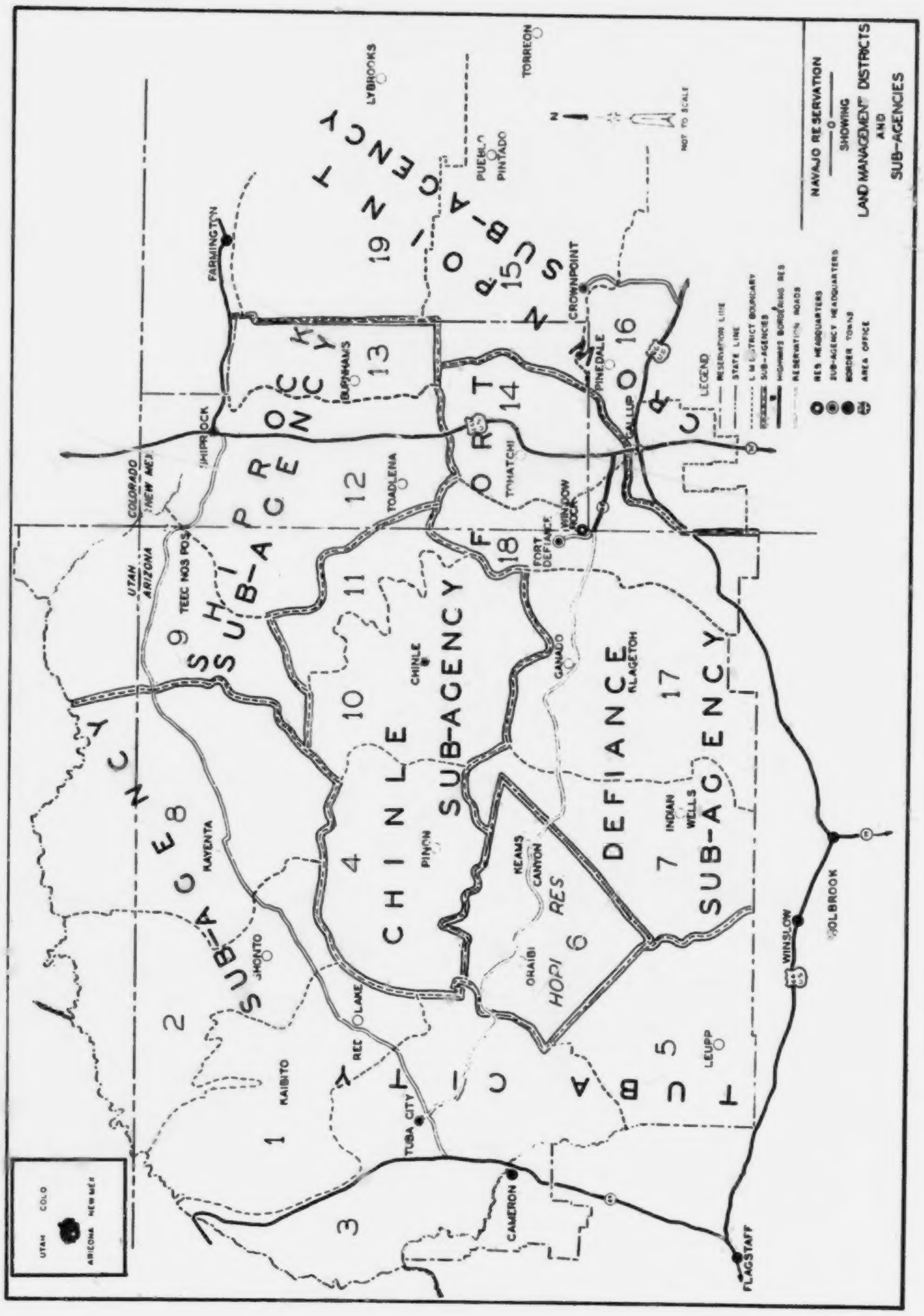
The author has made an exhaustive review of available files and other sources of information to expand the historical introductions to the several subject fields included in the present report, as well as to trace program progress, changes in emphasis and direction, policy modifications and other factors that across the decade, have had a bearing on the course of the Navajo-Hopi Rehabilitation Program initiated in 1950. The section on Realty has been broadened in scope to include an essay on the growth of the Navajo Reservation; the section on Tribal Government has been expanded to meet increased interest in the origin and history of this institution on the part of Navajo school-children and others; the section on the Navajo language has been improved as a result of increased concern, on the part of Reservation school teachers, with analysis of the problems inherent in the teaching of English as a foreign language to Navajo beginners;

and pertinent information has been added in conjunction with other sections.

Many individuals, agencies of the State and Federal Governments, companies operating on the Reservation, traders, missionaries and others have contributed their time and efforts to the assembly of data necessary to the compilation of the Yearbook report. It would be virtually impossible to list each and every one of them by name. However, the author owes a large debt of gratitude to the late Clyde Kluckholm, an eminent authority in the field of Navajo ethnology, for his generosity in providing published material, his encouragement and his constructive criticism of manuscript matter; likewise to the late Richard Van Valkenburgh for help of a similar type. Fathers Burcard Fischer and Elmer Von Hagel of St. Michaels Franciscan Monastery, Fr. Davis Given of the Good Shepherd Episcopal Mission, and Dr. Joseph A. Poncell were helpful in reviewing the sketch of Navajo religion; Mr. J. J. Prendergast of Redlands, California, generously entrusted family heirlooms to the author in order that historical information could be copied; Carl Chelf, a student of Navajo ethnology and ethnography, has provided useful information with a bearing on census and other subject fields; Louise Perkins of the Branch of Program in the Central Office of the Bureau of Indian Affairs provided source material for the sketch on the origin and growth of the Navajo Tribal Government; the Bureau of Reclamation at Glen Canyon Dam, the Uranium Mills, the Ordnance Depots, the Reservation Public Schools, the Branches of Personnel of the Gallup Area Office, the U. S. Public Health Service and the Navajo Tribe, the El Paso Natural Gas Company, the Railroad Retirement Board, the State Departments of Public Welfare and others have cheerfully reviewed their records to provide data relating to Navajo employment and Reservation economy; the U. S. Public Health Service and the Cornell-Many Farms Clinic have provided detailed descriptive reports regarding health problems, program progress, morbidity, mortality and demography; Dr. B. Alden Lillywhite of the Department of Health, Education and Welfare kindly provided data regarding the development of the P.L. 815 Public School system on the Navajo Reservation; personnel of the Phoenix Area Office and the Colorado River Agency have generously assisted in the development of information relating to the Colonization Program; personnel of the Branches at Navajo Agency have spent many hours searching their files and developing data necessary to the drafting of the reports covering specific aspects of the Bureau program; personnel of the Gallup Area Office have assisted in the assembly of data which were not available at Navajo

Agency; Navajo Tribal officials, including those of the Forest Products Industries and the Police Department, have been willing contributors of a variety of information required for the description of Tribal programs; and a host of other individuals and agencies have contributed in one way or another to make the compilation of the Yearbook possible. To these many people Navajo Agency expresses its deep appreciation.

Robert W. Young


NAVAJO RESERVATION
SHOWING
LAND MANAGEMENT DISTRICTS
AND
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LEGEND
RESERVATION LINE
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KAIBITO
TUBA CITY
CAMERON
FLAGSTAFF
RED LAKE
INSCRIPTION
KAYENTA
PINON
ORAIBI
KEAMS CANYON
LEUPP
WINSLOW
HOLBROOK
INDIAN WELLS
KLAGETOH
GANADO
CHINLE
TEEC NOS POS
SHIPROCK
FARMINGTON
TOADLENA
BURNHAMS
FORT DEFIANCE
WINDOW ROCK
TOHATCHI
GALLUP
PINEDALE
CROWNPOINT
PUEBLO PINTADO
LYBROOKS
TORREON
UTAH
ARIZONA
COLORADO
NEW MEX

(PUBLIC LAW 474—81st CONGRESS)
(CHAPTER 92—2D SESSION)
(S. 2734)
AN ACT

To promote the rehabilitation of the Navajo and Hopi Tribes of Indians and a better utilization of the resources of the Navajo and Hopi Indian Reservations, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to further the purposes of existing treaties with the Navajo Indians, to provide facilities, employment, and services essential in combating hunger, disease, poverty, and demoralization among the members of the Navajo and Hopi Tribes, to make available the resources of their reservations for use in promoting a self-supporting economy and self-reliant communities, and to lay a stable foundation on which these Indians can engage in diversified economic activities and ultimately attain standards of living comparable with those enjoyed by other citizens, the Secretary of the Interior is hereby authorized and directed to undertake, within the limits of the funds from time to time appropriated pursuant to this Act, a program of basic improvements for the conservation and development of the resources of the Navajo and Hopi Indians, the more productive employment of their manpower, and the supplying of means to be used in their rehabilitation, whether on or off the Navajo and Hopi Indian Reservations. Such program shall include the following projects for which capital expenditures in the amount shown after each project listed in the following subsections and totaling $88,570,000 are hereby authorized to be appropriated:

(1) Soil and water conservation and range improvement work, $10,000,000.

(2) Completion and extension of existing irrigation projects, and completion of the investigation to determine the feasibility of the proposed San Juan - Shiprock irrigation project, $9,000,000.

(3) Surveys and studies of timber, coal, mineral, and other physical and human resources, $500,000.

(4) Development of industrial and business enterprises, $1,000,000.

(5) Development of opportunities for off-reservation employment and resettlement and assistance in adjustments related thereto, $3,500,000.

(6) Relocation and resettlement of Navajo and Hopi Indians (Colorado River Indian Reservation), $5,750,000.

(7) Roads and trails, $20,000,000.

(8) Telephone and radio communication systems, $250,000.

(9) Agency, institutional, and domestic water supply, $2,500,000.

(10) Hospital buildings and equipment, and other health conservation measures, $4,750,000.

(11) Establishment of a revolving loan fund, $5,000,000.

(12) School buildings and equipment, and other educational measures, $25,000,000.

(13) Housing and necessary facilities and equipment, $820,000.

(14) Common Service facilities, $500,000.

Funds so appropriated shall be available for administration, investigations, plans, construction, and all other objects necessary for or appropriate to the carrying out of the provisions of this Act. Such further sums as may be necessary for or appropriate to the annual operation and maintenance of the projects herein enumerated are hereby also authorized to be appropriated. Funds appropriated under these authorizations shall be in addition to funds made available for use on the Navajo and Hopi Reservations, or with respect to Indians of the Navajo Tribes, out of appropriations heretofore or hereafter granted for the benefit, care, or assistance of Indians in general, or made pursuant to other authorizations now in effect.

SEC. 2. The foregoing program shall be administered in accordance with the provisions of this Act and existing laws relating to Indian affairs, shall include such facilities and services as are requisite for or incidental to the effectuation of the projects herein enumerated, shall apply sustained-yield principles to the administration of all renewable resources, and shall be prosecuted in a manner which will provide for completion of the program, so far as practicable, within ten years from the date of the enactment of this Act. An account of the progress being had in the rehabilitation of the Navajo and Hopi Indians, and of the use made of the funds appropriated to that end under this Act, shall be included in each annual report of the work of the Department of the Interior submitted to the Congress during the period covered by the foregoing program.

SEC. 3. Navajo and Hopi Indians shall be given, whenever practicable, preference in employment on all projects undertaken pursuant to this Act, and, in furtherance of this policy, may be given employment on such projects without regard to the provisions of the civil-service and classification laws. To the fullest extent possible, Indian workers on such projects shall receive on-the-job training in order to enable them to become qualified for more skilled employment.

SEC. 4. The Secretary of the Interior is authorized, under such regulations as he may prescribe, to make loans from the loan fund authorized by Section 1 hereof to the Navajo Tribe, or any member or association of members thereof, or to the Hopi Tribe, or any member or association of members thereof, for such productive purposes as, in his judgment, will tend to promote the better utilization of the manpower and resources of the Navajo or Hopi Indians. Sums collected in repayment of such loans and sums collected as interest or other charges thereon shall be credited to the loan fund, and shall be available for the purpose for which the fund was established.

SEC. 5. Any restricted Indian lands owned by the Navajo Tribe, members thereof, or associations of such members, or by the Hopi Tribe, members thereof, or associations of such members, may be leased by the Indian owners, with the approval of the Secretary of the Interior, for public, religious, educational, recreational, or business purposes, including the development or utilization of natural resources in connection with operations under such leases. All leases so granted shall be for a term of not to exceed twenty-five years, but may include provisions authorizing their renewal for an additional term of not to exceed twenty-five years, and shall be made under such regulations as may be prescribed by the Secretary. Restricted allotments of deceased Indians may be leased under this section, for the benefit of their heirs or devisees, in the circumstance and by the persons prescribed in the Act of July 8, 1940 (54 Stat. 745; 25 U. S. C., 1946 edition, sec. 380). Nothing contained in this section shall be construed to repeal or affect any authority to lease restricted Indian lands conferred by or pursuant to any other provision of law.

SEC. 6. In order to facilitate the fullest possible participation by the Navajo Tribe in the program authorized by this Act, the members of the tribe shall have the right to adopt a tribal constitution in the manner herein prescribed. Such constitution may provide for the exercise by the Navajo Tribe of any powers vested in the tribe or any organ thereof by existing law, together with such additional powers as the members of the tribe may, with the approval of the Secretary of the Interior, deem proper to include therein. Such constitution shall be formulated by the Navajo Tribal Council at any regular meeting, distributed in printed form to the Navajo people for consideration, and adopted by secret ballot of the adult members of the Navajo Tribe in an election held under such regulations as the Secretary may prescribe, at which a majority of the qualified votes cast favor such adoption. The constitution shall authorize the fullest possible participation of the Navajos in the administration of their affairs as approved by the Secretary of the Interior and shall become effective when approved by the Secretary. The Constitution may be amended from time to time in the same manner as herein provided for its adoption, and the Secretary of the Interior shall approve any amendment which in the opinion of the Secretary of the Interior advances the development of the Navajo people toward the fullest realization and exercise of the rights, privileges, duties, and responsibilities of American citizenship.

SEC. 7. Notwithstanding any other provision of existing law, the tribal funds now on deposit or hereafter placed to the credit of the Navajo Tribe of Indians in the United States Treasury shall be available for such purposes as may be designated by the Navajo Tribal Council and approved by the Secretary of the Interior.

SEC. 8. The Tribal Councils of the Navajo and Hopi Tribes and the Indian communities affected shall be kept informed and afforded opportunity to consider from their inception plans pertaining to the program authorized by this Act. In the administration of the program, the Secretary of the Interior shall consider the recommendations of the tribal councils and shall follow such recommendations whenever he deems them feasible and consistent with the objectives of this Act.

SEC. 9. Beginning with the quarter commencing July 1, 1950, the Secretary of the Treasury shall pay quarterly to each State (from sums made available for making payments to the States under sections 3 (a), 403 (a), and 1003 (a) of the Social Security Act) an amount, in addition to the amounts prescribed to be paid to such State under such sections, equal to 80 per centum of the total amounts of contributions by the State toward expenditures during the preceding quarter by the State, under the State plans approved under the Social Security Act for old age assistance, aid to dependent children, and aid to the needy blind, to Navajo and Hopi Indians residing within the boundaries of the State on reservations or on allotted or trust lands, with respect to whom payments are made to the State by the United States under sections 3 (a), 403 (a), and 1003 (a), respectively, of the Social Security Act, not counting so much of such expenditure to any individual for any month as exceeds the limitations prescribed in such sections.

SEC. 10. (a) There is hereby established a joint congressional committee to be known as the Joint Committee on Navajo-Hopi Indian Administration (hereinafter referred to as the "committee"), to be composed of three members of the Committee on Interior and Insular Affairs of the Senate to be appointed by the President of the Senate, not more than two of whom shall be from the same political party, and three members of the Committee on Public Lands of the House of Representatives to be appointed by the Speaker of the House of Representatives, not more than two of whom shall be from the same political party. A vacancy in the membership of the committee shall be filled in the same manner as the original selection. The committee shall elect a chairman from among its members.

(b) It shall be the function of the committee to make a continuous study of the programs for the administration and rehabilitation of the Navajo and Hopi Indians, and to review the progress achieved in the execution of such programs. Upon request, the committee shall aid the several standing committees of the Congress having legislative jurisdiction over any part of such programs, and shall make a report to the Senate and the House of Representatives, from time to time, concerning the results of its studies, together with such recommendations as it may deem desirable. The Commissioner of Indian Affairs at the request of the committee, shall consult with the committee from time to time with respect to his activities under this Act.

(c) The committee, or any duly authorized subcommittee thereof, is authorized to hold such hearings, to sit and act at such times and places, to require by subpoena or otherwise the attendance of such witnesses and the production of such books, papers, and documents, to administer such oaths, to take such testimony, to procure such printing and binding, and to make such expenditures as it deems advisable. The cost of stenographic services to report such hearings shall not be in excess of 25 cents per hundred words. The provisions of sections 102 to 104, inclusive, of the Revised Statutes shall apply in case of any failure of any witness to comply with the subpoena or to testify when summoned under authority of this subsection.

(d) The committee is authorized to appoint and, without regard to the Classification Act of 1923, as amended, fix the compensation of such experts, consultants, technicians, and organizations thereof, and clerical and stenographic assistants as it deems necessary and advisable.

(e) There are hereby authorized to be appropriated such sums as may be necessary to carry out the provisions of this section, to be disbursed by the Secretary of the Senate on vouchers signed by the chairman.

Approved April 19, 1950

SUMMARY OF FUNDS ALLOCATED AGAINST AUTHORIZATIONS CONTAINED IN THE NAVAJO-HOPI LONG RANGE REHABILITATION ACT (P.L.81-474)

AUTHORIZED $88,570,000 $20,000,000 (1)	ALLOCATED 1951-1959 inclusive	ALLOCATED			ALLOCATED
		1960	1961	1962	TOTAL
		SCHOOL CONSTRUCTION			
1. $ 25,000,000	$24,777,295	none	$ 100,000	$ 120,000	$24,997,295
		HOSPITAL AND HEALTH FACILITIES			
2. $ 4,750,000	$ 4,750,000 (2)	none	none	none	$ 4,750,000
		AGENCY, INSTITUTIONAL AND DOMESTIC WATER			
3. $ 2,500,000	$ 1,184,280	$ 27,390	$ 60,000	$ 85,000	$ 1,356,670
		IRRIGATION PROJECTS			
4. $ 9,000,000	$ 4,979,775	$ 546,600	$ 511,900	$ 578,500	$ 6,616,775
		ROADS AND TRAILS			
5. $ 40,000,000 (1)	$15,927,180	$7,299,000	$7,775,000	$7,236,500	$38,237,680
		SOIL AND MOISTURE CONSERVATION, RANGE IMPROVEMENT			
6. $ 10,000,000	$ 5,360,805	$ 562,400	$ 569,730	$ 604,240	$ 7,097,175
		DEVELOPMENT OF INDUSTRIAL AND BUSINESS ENTERPRISES			
7. $ 1,000,000	$ 238,000	none	none	none	$ 238,000
		RESETTLEMENT ON COLORADO RIVER IRRIGATION PROJECT			
8. $ 5,750,000	$ 3,449,750	none	none	none	$ 3,449,750
		SURVEYS AND STUDIES OF TIMBER, COAL, MINERALS			
9. $ 500,000	$ 436,895	none	none	none	$ 436,895
		OFF-RESERVATION PLACEMENT AND RELOCATION			
10. $ 3,500,000	$ 194,600	none	none	none	$ 194,600
		TELEPHONE AND RADIO COMMUNICATIONS SYSTEMS			
11. $ 250,000	$ 250,000	none	none	none	$ 250,000
		REVOLVING LOAN FUND			
12. $ 5,000,000	$ 1,800,000	none	none	none	$ 1,800,000
		HOUSING AND NECESSARY FACILITIES AND EQUIPMENT			
13. $ 820,000	$ 26,300	none	none	none	$ 26,300
		COMMON SERVICE FACILITIES			
14. $ 500,000	$ 495,100	none	none	none	$ 495,100
$108,570,000	$63,869,980	$8,435,390	$9,016,630	$8,624,240	$89,946,240

(1) P.L. 81-474, The Navajo-Hopi Long Range Rehabilitation Act was amended in 1958 to authorize the appropriation of an additional amount of $20,000,000 to complete Routes 1 and 3.

(2) Appropriated under the item "Construction of Indian Health Facilities, Public Health Services" (68 Stat. 674, 675).

Education

Historical: Prior to the signing of the Treaty of 1868 and the establishment of the Navajo Reservation, contacts between members of the Tribe and Western Civilization were few. There was an outpost garrisoned by soldiers at Fort Defiance and although Agents were appointed in pre-Treaty times to represent the Federal Government in its dealings with the Navajo, their principal concern was the keeping of the peace. No effort was made in the direction of formal education.

During the period 1864-1868 the main body of the Tribe was held on a reservation near present Fort Sumner, New Mexico, following their military defeat by American troops under the leadership of Kit Carson. Plans were made at that time to include the construction of a school as one aspect of a program aimed at the "civilization" of the Tribe, but funds were not available for this purpose during the Fort Sumner captivity and there were other more immediate and pressing problems of such magnitude that the need for education of the captives faded into the background.

The Treaty of 1868, marking the close of the Fort Sumner period, carried the following provision for the construction of schools and the conduct of a Reservation education program:

"In order to insure the civilization of the Indians entering into this treaty, the necessity of education is admitted, especially of such of them as may be settled on agricultural parts of this Reservation, and they therefore pledge themselves to compel their children, male and female, between the ages of six and sixteen years, to attend school; and it is hereby made the duty of the agent for said Indians to see that this stipulation is strictly complied with; and the United States agrees that, for every thirty children between said ages who can be induced or compelled to attend school, a house shall be provided, and a teacher competent to teach the elementary branches of an English education shall be furnished, who will reside among said Indians, and faithfully discharge his or her duties as a teacher. The provisions of this article to continue for not less than ten years."

In 1869, under the leadership of President U. S. Grant, a new national policy was inaugurated in the field of Indian affairs known as the "Peace Policy." In part, it was designed to expedite the Christianization of Indians on the reservations and, under the authority of the Act of April 10, 1869, the President issued an order authorizing the existing Board of Indian Commissioners to submit recommendations to the Department of Indian Affairs for the promotion of Indian welfare. The Board subsequently recommended the allotment of religious and educational work to the various religious denominations. Accordingly, on June 22, 1870, the Board of Indian Commissioners proffered the care of the Navajo Tribe in Arizona and New Mexico to the Presbyterian Board of Missions, and the offer was accepted.

In 1869, Miss Charity Gaston was employed by the Bureau of Indian Affairs, and was sent as a teacher to Fort Defiance where she attempted to conduct classes in a room set aside for the purpose at the Agency. The attempt bore no fruit.

During the decade of the 1870's a continuing but feeble effort was made toward the establishment and operation of a school, housed in an ancient adobe building at Fort Defiance, but it was signally unsuccessful. It proved to be virtually impossible to "induce or compel" Navajo children, at that period, to attend school and, under the conditions of life on the Reservation, the operation of day schools was patently infeasible. It is not universally feasible in the Navajo area even in 1962.

In 1880, the construction of a boarding school was commenced by the Bureau of Indian Affairs at Fort Defiance. On October 14, 1880, Agent F. T. Bennett reported[1] that the sawmill had been placed in operation, and stone was being quarried for construction purposes. "When completed as per plan it will be both spacious and admirably arranged in all its appliances for the purpose of a boarding school and will accommodate from one hundred and fifty to two hundred pupils," Agent Bennett observed.

On November 20, 1880, Agent Bennett was notified of the appointment, by Mr. N. Kendall, Secretary of the Presbyterian Board of Home Missions, of a J. D. Perkins as teacher in charge of the Fort Defiance Boarding School. Being a *practical builder* Mr. Perkins assumed over-all charge of construction activities, under the direction of the Agent. In an undated memorandum[2] to the latter, Mr. Perkins indicated that at least 24 months would be required to complete the structure with the small amount of appropriated funds ($875) available for the work.

In 1884, John H. Bowman became Navajo Agent at Fort Defiance and in a letter to the Commissioner, dated in September of that year, he stated that, according to his predecessor, the Agency school had not been a success in the preceding year. The latter attributed this circumstance to the fact that the Agency had been unsuccessful in obtaining a competent school staff. "The Superintendent (Mr. Logan) told me," Agent Bowman re-

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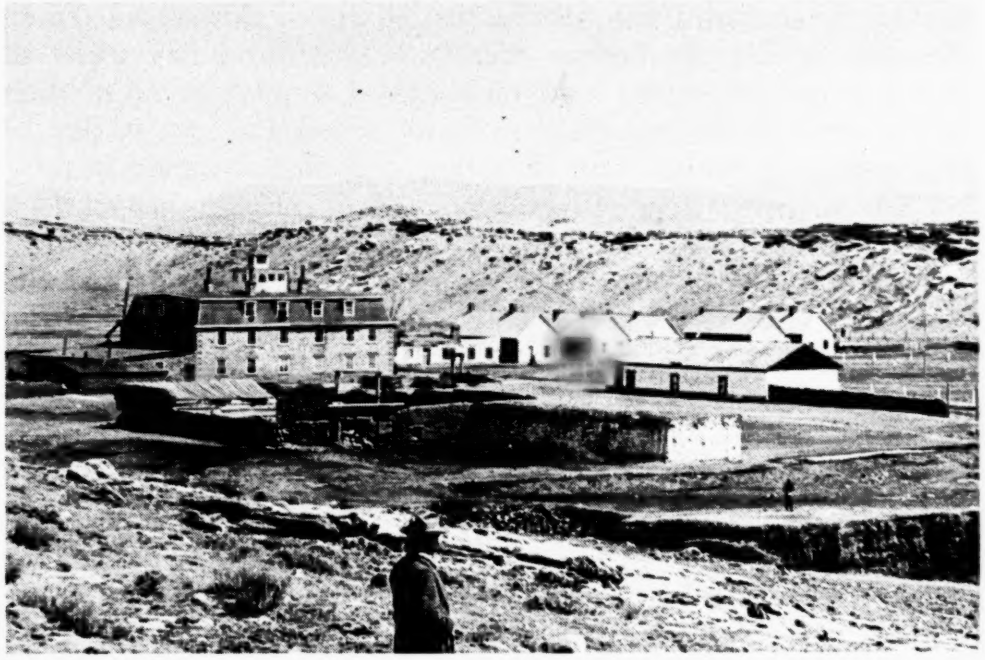
[1] Agency letterbook, 1880

[2] Agency letterbook — 1880-81



Taken about a year after its completion (1884) the "new" Fort Defiance Boarding School dominates the community. (Photo by Ben Wittick)

The original structure continued in use for school purposes until the 1930's; it was finally razed in 1960 because of its structural weakness.

ported, "that during the time he had charge of this school (seven months) he did not believe there was one single day when all of the school employees were on speaking terms with all of their co-laborers — that the children would come and stay a day or two, get some clothes, and then run away back to their *hogans*, but few of them attended regularly, consequently the school done (sic) but little real good."[3]

Mr. Bowman went on to report that he had "adopted the plan of having one of the police in attendance, and if any of the children leave without proper permission he promptly brings them back."

With regard to attendance, Mr. Bowman expressed himself to the effect that "we have a good school building and this is the only school among all this people, and I feel that it should be well attended, and I shall use all the power which you have given me to that end, and I feel quite confident that this term of our school will be a comparatively successful one."

A month later, in October, 1884, twenty-two pupils were enrolled at Fort Defiance. The school was described by Agent John H. Bowman[4] as "running in a satisfactory manner although the attendance has been smaller than we anticipated or had wished." He attributed the scantiness of the student body to the fact that autumn was a festive season and parents preferred to keep their children at home. Mr. Bowman optimistically informed the Commissioner that "this season being now over, I am satisfied that we will have as large an attendance of children at school as we can accommodate."

In November, 1884, the Agent expressed his unconcealed disappointment at the continued small attendance at the Fort Defiance School. He reported attendance at 24, but took some consolation in the observation that none of these scholars had so far attempted to run away. In fact, Agent Bowman reported that he felt "assured and am told by them who have had opportunities for observing that the present term of school is the best and most successful one that has ever been conducted at this Agency."

In January, 1885, Agent Bowman reported the regular attendance of 33 pupils, an increase of 9 over the preceding year.

A few years later, in 1887, the school attendance of Indian children became compulsory, and thereafter it became the custom to use the police to locate school age children and place them in school. Frequently, parents hid their children from the police, or voluntarily sent only the sickly and weak, retaining the strong at home. Implementation of the compulsory attendance law almost precipitated violence in the fall of 1892 when Agent Dana Shipley was besieged in a trading post by a force of Navajos under the leadership of a man known as Black Horse.

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[3] Agency letterbook — 1884

[4] Agency letterbook—1884

From time to time, long after the turn of the 20th century, there was friction between members of the Tribe and the administration over the subject of school attendance. However, during the first decade of the 1900's schools were constructed at Tuba City, Leupp, Tohatchi, Shiprock and Chinle, and during the following decade similar facilities were built at Crownpoint, Toadlena and Fort Wingate. In addition, Navajo students attended some of the off-Reservation facilities constructed for purposes of Indian education in the 1880's and 1890's (e.g. Sherman Institute, Carlisle, Chemawa).

However, the formal educational system of the non-Navajo world lying outside the Reservation area did not meet a felt need on the part of the Navajo people, living as they did within the perspective of Navajo culture. Within the traditional society, an educational process was carried on at home, designed to teach children the traditional techniques of agriculture and stockraising, the legends, the tabus and the practices of Navajo culture. Ability to read and write an alien language and assume the ways of an

The traditional education included mastery of the arts of carding, spinning and weaving -

As well as the herding and care of livestock.

alien people was not attractive to the Navajo people. Nor was the Tribe subject to many pressures for cultural change requiring formal education as a prerequisite to successful adaptation until the decade of the 1930's. Most of the unwilling scholars driven to school by the police in preceding years merely returned to the Reservation and reestablished themselves as members of Navajo society following their "release" from school or their successful evasion of the police.

It was not until the mid-1930's, as an aspect of the social and economic revolution that commenced during that period in the Reservation area, that serious thought was given to necessary expansion of the education system serving the Navajo Tribe. The Meriam Report of 1928 described the 8 boarding and 9 day schools operating at that time on the Reservation as decrepit and the authors of the Report looked with disfavor on the use of boarding facilities, favoring expansion of the day school system. The old boarding and day schools of the time could accommodate only 2,865 students who, under the guise of "vocational training" were required to perform all of the drudgeries of institutional work, thus allowing an "economical" school operation costing the Federal Government only $225 per capita per year, and including food allowances of only eleven cents per day per pupil! The remaining food was produced by the pupils on school farms.

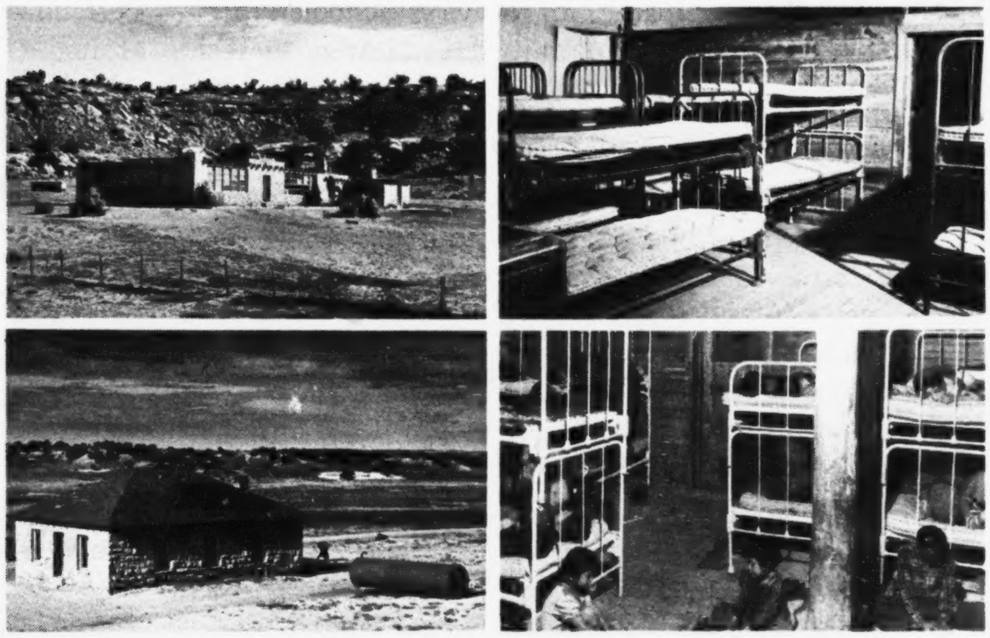
With de-emphasis of the boarding school system, 50 new day schools were built during the mid-1930's in the Reservation area, adding 3,500 new spaces for Navajo schoolchildren. The new system was designed to permit the children to reside at home, and bus service was provided for the commutation of the children to and from school. However, in the absence of the necessary road system to serve the school buses, the operation of the schools posed many problems and, with the outbreak of World War II, the continuation of bus service became impossible.

By the 1940's there was a growing awareness of the need for formal schooling on the part of the Navajo people, and during the war period temporary, makeshift dormitory operations, built in some localities by Navajo parents themselves, converted the day schools to a boarding basis and kept the Reservation school system alive. The active participation of Navajo parents who acted as dormitory attendants, contributed food, and otherwise made sacrifices in the interest of educating their children stands as a monument to the vision and forbearance of these farsighted members of the Tribe.

The interest in education increased greatly during the war; Navajo servicemen and former war workers alike returned to the Reservation with a new understanding of the role of education in the life training of their children. The cultural isolationism of the past had given way to a much broadened viewpoint on the part of a majority of the Navajo people and, in May 1946, a

PUEBLO BONITO

The old Crownpoint (formerly called Pueblo Bonito) Boarding School ended its 52-year career in Navajo education at the close of the 1960-61 school year. A new, modern school plant will replace this antiquated and unsafe structure.



(Upper Left) Typical of the dayschools built in the 1930's is the original structure built about 1935 at Steamboat. (Lower Left) During the war years the Steamboat Chapter House was used as a makeshift dormitory, continuing in this capacity until it burned to the ground in the early 1950's. (Upper Right) During the period of its use as a makeshift dormitory the Steamboat Chapter House was crowded and unsafe - - - - (Lower Right) Presenting bedtime scenes similar to the above, taken in 1944 in a makeshift dormitory at Hunters Point - - - -

special Tribal Council Delegation expressed itself to the Secretary of the Interior, Congressional Committees and others in Washington to the effect that formal education was considered by the Tribe to be its primary need. The demand for schools grew louder in succeeding years, and many non-Navajos throughout the country learned, with mixed feelings of disbelief and chagrin, that there was a group of nearly 70,000 American Indians for whom not even necessary school plants existed and who, lacking an education, could not even speak, read and write the national language.

The public added its voice to the clamor raised by the Tribe.

During the period 1946-47, Dr. George I. Sanchez, a Professor of Education at the University of Texas, was employed by the Bureau of Indian Affairs to carry out a comprehensive study of school requirements in the Navajo Country. The data assembled by Dr. Sanchez pointed to the fact that 66% of the Navajo population had no schooling whatsoever and the median number of school years among members of the Tribe was less than one — a figure that contrasted sharply with a median of 5.7 years for the Indian population of the United States generally, and even more sharply with the 8.4 years then characterizing the national population.

As a result of his survey, Dr. Sanchez recommended a school construction program requiring more than $90 million (on the 1945 construction market) for implementation, but providing seats for only 75% of the 1946 school age population — older children would have to continue their education outside the Reservation, and continuing construction would be necessary to remain abreast of the population increase.

During the same period, Dr. G. A. Boyce, then Director of Navajo Schools, carried out an exhaustive survey of the Navajo education problem which led him to the conclusion that the limited availability of water in the Reservation area might prove to be a limiting factor in the construction of schools necessary to accommodate the school age population. He therefore recommended[5] that consideration be given to the possibility of educating a larger number of the Navajo children in the towns surrounding the Navajo Country. "A construction pattern that might be most feasible in that case would be to build semi-permanent but modern dormitories in such towns," Dr. Boyce observed, "according to the community water available, at Government expense and under Government operation. Because these communities would undoubtedly not have sufficient classroom facilities the Government might build additional school buildings, tied in with the existing public school facilities, and donate them to the respective communities under contract for their maintenance and operation by the public school system. The public school system would also have to be subsidized for the cost of schooling, * * * It is our thought that on such a pattern most of the schools located on the Reservation would be for children of elementary age or grade, and only children over 12 years of age would be located in these off-Reservation dormitories and joint Federal-Community public schools."

The recommendations which had been made in 1947 by Drs. Sanchez and Boyce found their way, at least in part, into the Krug Report of 1948 and thence into the Long Range Rehabilitation Program of the 1950's or into subsequent phases of the Navajo program. The bordertown dormitory program initiated in 1954 parallels with great exactness the recommendation made 7 years before by Dr. Boyce.

The Decade of the 1950's: The gargantuan task of building school facilities to accommodate the Navajo school age population was approached by the Congress, in 1950, through the Long Range Act which authorized the appropriation of $25,000,000 for school construction purposes. This sum was not regarded as sufficient to solve the total problem, but was estimated to be the amount necessary to meet the needs of 55% of the then existing school age population. It was the consensus at the time that the Reservation area could support only about 35,000 people, and that population shifts would take place during the ensuing decade that would change the complexion of the school construction problem.

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[5] Letter of April 25, 1947 to the Director of Education, Washington, D.C.

As it was enacted by Congress in 1950, the Long Range Act provided for (1) the construction of school facilities on the Navajo Reservation to accommodate ultimately all school age children on a boarding or day basis; (2) provision for the elementary and vocational education of Navajo children aged 12-18 years, who had not attended school previously, or who were 3 or more years retarded (The Special Navajo Educational Program); (3) provision of high school opportunities on and off the Reservation as required; and (4) the transfer of responsibility for the education of Navajo and Hopi children to the public school system as rapidly as possible.

During the period fiscal years 1952-53, inclusive, the Congress appropriated a total of $6,448,000 for school construction purposes on the Navajo and Hopi Reservations, and with a portion of this sum new construction or expansion projects were completed at Hunters Point ($301,400), Cheechilgeetho ($313,000), Thoreau ($404,365), Pine Springs ($269,100), Kaibeto ($754,400,) Nazlini ($818,000), Sanostee ($869,800), and Mariano Lake ($413,000).

The school construction program for which funds were authorized under the Long Range Act was not exclusively an expansion program, in the sense that it added to existing school seats to thus provide for additional enrollment; rather, in many of its phases it involved the construction of standard dormitories, quarters and other necessary facilities at existing schools which were originally constructed (in the 1930's) for operation on a day basis. Thus, the construction in reference above added approximately 250 school seats, but provided standard dormitories to house the children who previously had been housed in crowded, dangerous makeshift facilities ranging from unused classrooms to hogans, shacks, sheds and similar types of structures used as sleeping quarters for the children.

Consequently, during the initial phases of the Long Range Program, some progress was made in the direction of replacing unsafe, crowded and otherwise unsuitable facilities, converting existing school plants from a day to a boarding basis, but little progress was achieved immediately in the direction of providing school opportunities for the total school age population of which

MODIFIED SCHOOL CONSTRUCTION PROGRAM
1954

ORIGINAL PROJECT	ALLO-CATION	PLANNED EN-ROLL-MENT	RE-PROGRAMMED TO	CURRENT ENROLL-MENT (12/30/54)	SAVINGS EF-FECTED
Standing Rock Conversion	$ 450,000	64	$ 98,000	64	$ 352,000
Steamboat Conversion	815,000	180	299,000	140	516,000
Crystal Conversion	720,000	180	236,000	110	484,000
Greasewood Conversion	725,000	180	223,000	180	502,000
Pinon Enlargement	815,000	300	410,000	220	405,000
Dennehotso Enlargement	625,000	170	0	181	625,000
Seba Dalkai Conversion	450,000	96	0	98	450,000
Polacca, New Building	450,000	(140)	0	(Hopi)	450,000
Shiprock Boarding School	834,000	1,224	331,599	860	502,500
Fort Defiance Sewage	40,000	-	0	-	40,000
Keams Canyon Steam Distr.	44,000	-	0	-	44,000
Quarters, Various	203,000	-	0	-	203,000
TOTAL	$6,171,000	2,534	$1,597,599	1,853	$4,573,500

nearly half remained out of school due to the lack of accommodations.

Navajo Tribal leaders were deeply concerned by the slow rate of progress toward the all-important objective of providing facilities to permit universal education to become a reality in the Reservation area. The Tribe was fully convinced of the essential nature of schooling as a preparation for successful living and, in 1954, the Council heartily endorsed a crash program designed to increase the number of school seats on an immediate basis even though the amount of space provided, the quality of construction, and other aspects of the physical plants would have to be cheapened in order to stretch available funds to the utmost. To this end, the Council advised the Commissioner that they favored the reprogramming of the 1954 Federal school appropriation to effect greater economy in design and materials, and thus spread available money to provide the maximum number of school seats possible.

On March 3, 1954, the Council adopted a resolution authorizing the Commissioner to take whatever steps might be necessary, in his estimation, to accomplish the objective of universal education for the Tribe, and the Navajo Emergency Education Program, commonly known as NEEP, was thus born. The immediate objective was to provide seats for an additional 7,946 Navajo children by September of the same year, to thus raise enrollment to a minimum of 22,052 children. An appropriation of $6,171,000 in fiscal year 1954 was available, although in large part such appropriated funds had been allocated for projects on which actual construction had not begun. The 1954 appropriation was reprogrammed to effect a saving of $4,573,500, and the latter sum was designated for other school construction purposes. The reprogramming of the 1954 fiscal year appropriation is summarized below:

Accomplishment of the immediate objective of increasing enrollment by 7,946 children by the fall of 1954 through initiation of a crash program was realized — in fact, the objective was surpassed. To accomplish this purpose, the enrollment in existing Reservation schools was greatly increased by more intensive use of available space for essential school purposes. Dining rooms were made to function as dormitories or classrooms at some locations; recreational space was put to utilitarian use; quonset huts were erected to serve as dormitories where classrooms could thus be freed; the off-Reservation school enrollment was expanded to accommodate about 1,200 additional Navajo children; 1,119 Navajo children were accommodated in 37 trailer schools strategically located throughout the Navajo Country; and dormitory space, on a makeshift basis, was acquired in towns bordering the Reservation to permit absorption of 1,030 Navajo children in the local public schools.

The savings effected by reprogramming of the 1954 Federal appropriation were designated for the following purposes: Quarters and furniture for the Shiprock school ($331,559); construction of a 536-pupil boarding school at Kayenta ($1,507,000); additions and remodeling of the Kaibeto school ($39,000); folding partitions to divide dormitory living rooms into classrooms at Thoreau ($7,000); additional classrooms and quarters at Nazlini ($45,000); additional dormitory and other facilities at Crystal ($236,000); additional dormitory, quarters and other facilities at Greasewood ($223,000); dormitory construction at Standing Rock ($98,000); new dormitory, kitchen, dining and other facilities at Steamboat ($299,000); new dormitories, classrooms, quarters and other facilities at Pinon ($410,000); and additional classrooms and quarters at Wide Ruins ($69,500). With the exception of the Kayenta school, which was not completed until 1955, the "crash" construction program was completed by late fall of 1954. This construction accounted for $3,265,099 of the available Long Range funds.

In addition, $950,690 was used for the development of 36 trailer school locations; $314,000 was used in the bordertown dormitory program; $129,756 was allocated for use at the Phoenix

Indian School and $505,000 was used for a variety of purposes including warehousing, access trail construction, water exploration, repair projects, engineering plans and surveys and other miscellaneous. A total of $460,454 remained unprogrammed in fiscal year 1955.

In 1954, the Tribal Council adopted a resolution (CS-34-54) to provide $350,000 for the purchase of schoolchildren's clothing, both as an incentive to school enrollment and to meet an actual need on the part of many Navajo children.

The tempo of school expansion in the Reservation area remained high throughout the period from 1954-1960 as indicated in the following tabular summary. Coupled with public school construction and expansion in the Reservation area, the gap between school age population and available school space rapidly narrowed until, in 1960, not more than 4,000 school age children remained out of school in contrast with nearly 10,000 in 1954, and to no small extent the remaining children out of school reflect population increase as well as lack of motivation and other factors aside from the shortage of available space.

However, as reflected in the tabular summary, space has been provided to meet the demand at many locations at the cost of enrolling children beyond the rated capacity of the school — i.e. by overcrowding. The elimination of this undesirable feature of the current school operation remains a problem demanding solution in the immediate future. In fact, of 9,792 dormitory spaces available to Navajo children in 1960, 3,246 or about 33% were substandard (overcrowded, makeshift, etc.), and of 364 classrooms, 78 or about 21% were inadequate for similar reasons.

In 1955, the Commissioner of Indian Affairs published a statement entitled *General Education Policy,* with which the Navajo Tribe expressed its general agreement. Among the salient features of this policy were the following commitments:

(1) The development of educational opportunities on the Reservation for beginners through age 12 (or through grade 6) in order to permit small children to reside with their parents during the child's formative years.

(2) The development of educational opportunities in public schools for children at the junior and senior high school levels (grades 7-12).

(3) The continuation of the Special Navajo Education Program in its original (5 year) or modified forms to thus combine vocational and academic education adapted to the special needs of those members of the 13-18 year age group who are two or more years retarded or who did not have an opportunity for a regular education.

Progress has been made toward the implementation of these objectives, with especial reference to those set forth under (1) and (2) above, but a large amount of expansion of the Reservation school system is necessary before the policy can be fully implemented. The magnitude of the remaining task is reflected in the fact that, of the 73 schools operated by the Bureau, on the Navajo Reservation, in 1960, only 6 could meet the objective of accommodating children in grades 1-6 (age group 6-12); in fact, 51 out of the 73, or 70%, did not offer instruction beyond grade 3.

Planning carried out by the Bureau during the latter half of the decade of the 1950's, with relation to school construction on the Reservation, indicated a need for development of a total school system capable of accommodating 22,000 children in the 6-12 year age group — a population level that will no doubt be reached by 1963. To accommodate that portion of the age group in reference that will continue to require *federal* schools (an estimated 15,755 children), it will be necessary to build new dormitories to house a total of 7,516 children at a number of widely separated locations. In addition, 200 new classrooms will be needed and 26 existing classrooms will require reconstruction of one type or another. Future studies will be necessary to provide for the school age population after 1963.

Children in the 13-18 year age group are currently accommodated in the off-Reservation Boarding schools operated by the Bureau of Indian Affairs, and in public or mission schools located on or near the Reservation. Available space for the 13-18 year age group is presently adequate in this far-flung school operation and, as the need for the Special Navajo Program declines the space thus freed should compensate for the concurrent increased demand on the part of "regular" program students. However, it is anticipated that Navajo high school enrollment will double by the 1962-63 school year, and available space will not exceed requirements thereafter.

Retardation as a Factor in Navajo Education: Reared in the Reservation environment, nearly all Navajo children enter school without the ability to speak the English language. Thus, the first year in school is devoted primarily to the development of a basic speaking knowledge of the language of instruction, in conjunction with the learning of concepts pertaining to non-Indian culture. In view of the fact that children generally enter the first grade at the age of six, *the Navajo child is automatically one year retarded at the beginning of his school career* if the national age-grade standards governing the public schools on a nationwide basis are taken as the point of reference. This problem is compounded on the Navajo Reservation by factors such as (1) failure of parents

THE STATUS OF FEDERAL SCHOOL FACILITIES OPERATED IN THE NAVAJO RESERVATION AREA - 1950-1960

Authorized Enrollment 1960-61 School Year

PROJECT OR FACILITY	COST	DATE COM-PLETED	TOTAL EN-ROLL-MENT 1949-1950	AUTHORIZED ENROLLMENT 1960 1961		ESTABLISHED CAPACITY ON BASIS OF MINIMUM ACCEPTABLE STANDARDS 1960		NUMBER OF PUPILS IN CROWDED OR UN-SAFE FACILITIES 1960	
				Board-ing	Day	Dormitory	Classrooms	Dormi-tory	Class-rooms
Albuquerque Dorm.	$ 686,034	1959	0	350	-	350	-	0	-
Aneth	-	c. 1935	65	60	0	0	60	60	0
Baca	-	c. 1935	91	64	0	0	0	64	64
Beclabito Exp.	153,844	1959	43	0	60	0	90	0	0
Blue Gap	94,194	1957	0	0	30	0	30	0	0
Borregos Pass	331,350	1958	0	0	120	0	120	0	0
Bread Spring	879,000	1959	0	0	90	0	90	0	0
Chinle	4,153,767	1961	182	800	0	1,024	1,024	0	0
Canoncito	521,672	1960	27	64	64	64	64	0	0
Cheechilgeetho	313,000	1953	46	85	0	64	60	21	25
Chilchinbeto	-	1953	0	0	50	0	0	0	50
Coalmine	32,839	1959	0	0	25	0	25	0	0
Cottonwood	-	1954	0	0	75	0	75	0	0
Cove	469,239	1960	0	0	120	0	120	0	0
Coyote Canyon	-	c. 1935	70	90	6	64	60	26	36
Crownpoint Dorm.	-	-	0	300	0	0	0	300	0
Crownpoint	-	1909	350	210	0	0	0	210	210
Crystal Conv.	236,000	1954	87	145	20	64	120	81	45
Del Muerto	-	1954	0	0	25	0	25	0	0
Dennehotso	(479,000) 1/	(1962)	156	120	0	0	120	120	0
Dilcon	-	1954	0	0	25	0	0	0	25
Dinnebito Dam	-	1954	0	0	50	0	0	0	50

1/ Construction is in progress but cost and increased enrollment are not included in table or in totals.

(Continued)

PROJECT OR FACILITY	COST	DATE COM-PLETED	TOTAL EN-ROLL-MENT 1949-1950	AUTHORIZED ENROLLMENT 1960 1961 Board-ing	Day	ESTABLISHED CAPACITY ON BASIS OF MINIMUM ACCEPTABLE STANDARDS 1960 Dormitory	Classrooms	NUMBER OF PUPILS IN CROWDED OR UN-SAFE FACILITIES 1960 Dormi-tory	Class-rooms
Dormitories, Bordertown:	$ 3,188,309	1957-1959							
Holbrook			0	420	0	420	0	0	0
Winslow			0	300	0	300	0	0	0
Flagstaff			0	300	0	300	0	0	0
Richfield			0	125	0	125	0	0	0
Snowflake			0	120	0	120	0	0	0
Aztec			0	120	0	120	0	0	0
Greasewood Conv.	223,000	1954	82	173	7	64	120	109	60
Hatch's Store	-	1954	0	0	25	0	25	0	0
Huerfano Dorm. Exp.	340,763	1959	42	96	0	96	0	0	0
Hunters Point Conv.	301,400	1952	74	90	0	64	60	26	30
Indian Wells	-	1954	0	0	25	0	0	0	25
Inscription House	51,739	1959	0	0	50	0	50	0	0
Iyanbito	-	c. 1935	41	0	32	0	30	0	2
Jeddito	32,265	1959	0	0	25	0	25	0	0
Jones Ranch	350,402	1959	0	0	90	0	90	0	0
Kaibeto Conv.	754,400	1954	66	180	8	128	120	52	60
Kayenta	1,507,000	1955	34	450	0	264	540	186	0
Kimbeto	-	1953	0	0	50	0	0	0	50
Kinlichee	1,089,500	1961	85	256	0	256	240	0	16
Klagetoh	-	c. 1935	79	96	0	0	90	96	6
Lake Valley	-	c. 1935	48	64	0	0	0	64	64
Leupp	3,874,259	1961	0	600	0	672	690	0	0
Low Mtn. Conv.	299,289	1957	0	80	55	56	120	24	15
Low Mtn.	40,682	1960	0						
Lukachukai Exp.	972,439	1959	151	256	44	256	240	0	60
Magdalena Dorm.	390,211	1959	0	128	-	128	-	0	-

(Continued)

PROJECT OR FACILITY	COST	DATE COM-PLETED	TOTAL EN-ROLL-MENT 1949-1950	AUTHORIZED ENROLLMENT 1960 1961		ESTABLISHED CAPACITY ON BASIS OF MINIMUM ACCEPTABLE STANDARDS 1960		NUMBER OF PUPILS IN CROWDED OR UN-SAFE FACILITIES 1960	
				Board-ing	Day	Dormitory	Classrooms	Dormi-tory	Class-rooms
Mariano Lake	$ 413,000	1954	0	90	30	64	60	26	60
Mexican Springs (Dorm.)	-	c. 1935	72	60	0	0	0	60	0
Naschitti (Dorm.)	-	c. 1935	65	100	0	0	0	100	0
Navajo Mountain	-	c. 1935	35	30	0	0	0	30	30
Nazlini	863,000	1954	0	180	0	128	180	52	0
Nenahnezah	-	c. 1935	151	150	0	0	120	150	30
Ojo Encino	-	1954	0	0	50	0	0	0	50
Pinedale	-	c. 1935	29	30	0	0	0	30	30
Pine Springs	269,100	1953	31	64	0	64	60	0	4
Pinon Enlgemt.	410,000	1954	154	310	20	192	270	118	60
Pueblo Pintado	-	c. 1935	41	64	0	0	0	64	64
Ramah Dormitory	 574,000	c. 1935 1955	 (32 [2]						
Ramah Dormitory	231,730	1959	0	200	-	200	-	0	-
Red Lake Conv.	397,094	1959	0	0	110	0	60	0	50
Red Rock	-	c. 1935	97	64	30	0	60	64	4
Rock Point	-	c. 1935	60	70	20	0	30	70	60
Rough Rock	-	c. 1935	36	60	0	0	30	60	30
Round Rock	301,280	1958	0	45	45	0	90	45	0
Salina Springs	-	1954	0	0	30	0	30	0	0
San Juan	-	1903	220	192	0	192	180	0	12
Sanostee	869,800	1954	0	140	60	128	180	12	20
Seba Dalkai	549,709	1959	62	128	0	128	120	0	8
Shiprock	449,546	1957	190	1,000	0	750	750	250	250
Shonto		(1962)	70	64	0	0	0	64	64
Smoke Signal	73,340	1957	0	0	30	0	30	0	0
Standing Rock	98,000	1954	48	64	0	32	60	32	4

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[2] Enrollment in the former Ramah Day School.

(Continued)

PROJECT OR FACILITY	COST	DATE COM-PLETED	TOTAL EN-ROLL-MENT 1949-1950	AUTHORIZED ENROLLMENT 1960 1961		ESTABLISHED CAPACITY ON BASIS OF MINIMUM ACCEPTABLE STANDARDS 1960		NUMBER OF PUPILS IN CROWDED OR UN-SAFE FACILITIES 1960	
				Board-ing	Day	Dormitory	Classrooms	Dormi-tory	Class-rooms
Steamboat Conv.	$ 299,000	1954	61	158	0	64	60	94	98
Tachee Exp.	34,784	1957	0	0	25	0	25	0	0
Thoreau Conv.	404,365	1952	0	150	0	128	120	22	30
Toadlena	-	1913	259	300	0	0	180	300	120
Tolani Lake	-	c. 1935	62	64	0	0	60	64	4
Teecnospos	(1,626,000)[3]	c. 1935 (1961)	68	64	0	0	0	64	64
Tohatchi		1895 (day) 1904 (bdg)	0	210	0	128	180	82	30
Torreon	-	c. 1935	62	64	0	64	60	0	4
Tuba City	(683,500)	(1961) 1902	378	600	0	0	420	600	180
Twin Lakes	-	c. 1935	89	96	0	0	60	96	36
Wide Ruins	69,500	1954	58	96	0	0	90	96	6
Wingate Exp.	1,507,724	1960	470	820	0	820	820	0	0
Whippoorwill	-	1954	0	0	25	0	25	0	0
White Cone	67,141	1957	0	0	90	0	30	0	60
White Horse Lake	-	c. 1935	39	62	0	0	30	62	32
Advanced Planning Costs	574,193	1958-59							
Miscellaneous Costs [4]	2,579,915	1956-59							
36 Trailer Day Schools [5]	950,690	1954	0						
TOTAL [5]	$33,273,508		4,758	11,931	1,736	8,081	8,993	4,146	2,387

[3] Includes heating and sewerage, demolition of the old Fort Defiance School (in 1960), water exploration and the construction of quarters various.

[4] The cost of installing 36 trailer schools during the Navajo Emergency Education Program of 1954, as reported in Report No. IV. This cost cannot be broken down by individual installations on the basis of available information.' in totals.

[5] The total is a close approximation of the value of Federal funds expended during the period 1950-60 for the construction, expansion or rehabilitation of Bureau schools on the Navajo Reservation. It is based on available construction cost records which may not be complete in some instances.

to enroll their children in school when they reach the age of six years; (2) irregular attendance on the part of some of the beginners; (3) variation in the rate at which children learn to speak, read and write English, and on the degree of motivation attendant upon such learning in individual cases; (4) comparative intensity of pressures for acculturation in the child's home environment, and a host of allied factors.

It is not generally feasible to consider the enrollment of children five years of age in boarding schools to thus minimize or eliminate the one year of age-grade retardation faced by most Navajo children who enter school at the age of six, nor is there any other practical approach to the elimination of this type of retardation under the conditions of life on the Reservation. It has been minimized in recent years through the close cooperation of the Navajo Tribe to the extent that more children are enrolled in school at the age of six than ever before, and it may be further minimized in the future, but it is doubtful that retardation can be eliminated as a factor in Navajo education until the cultural environment of the Reservation becomes more nearly assimilated to the national norm which is used as the point of reference in measuring the retardation of Navajo children.

The problem is also compounded by the fact that a large proportion of the schoolchildren from the Bureau schools on the Reservation, who are up-to-grade (un-retarded), are enrolled in the Bordertown program to thus meet the requirement[6] with reference to the enrollment of pupils "age 12 and above, who * * * * are not retarded to the extent that their enrollment would create a handicap to the public school situation."

The extent and nature of age-grade retardation, in the Reservation Schools operated by the Bureau of Indian Affairs as well as in the Bordertown program (involving the enrollment of Navajo children in the public school system in towns bordering the Reservation) are reflected in the following tabular summaries:

The Adjustment of Navajo Children to the School Environment: As pointed out or implied in preceding paragraphs, attainment of the objectives of universal education among the Navajo Tribe in the face of cultural dissimilarities, the physical limitations of the Reservation School system and other factors, is achieved only at a price. It is a long step from the hogan with its small, tightly knit family group to the boarding school with its vast sea of strangers; nor is the transition from a child's Reservation home to the public school an easy step. The necessity to learn

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[6] School Enrollment Guidelines, Branch of Education, Navajo Agency, 1959-60.

EXTENT AND DEGREE OF RETARDATION OF CHILDREN ENROLLED IN BUREAU OPERATED RESERVATION SCHOOLS, ON THE BASIS OF ACCEPTED PUBLIC SCHOOL STANDARDS - COMPARATIVE

December, 1957 - November, 1960

GRADE	Total Enrollment		Total Number Up-To-Grade		Percent Up-to-Grade		Total Number 1-Year Retarded		Percent 1-Year Retarded		Total Number 2 Or More Years Retarded		Percent 2 Or More Years Retarded	
	1957	1960	1957	1960	1957	1960	1957	1960	1957	1960	1957	1960	1957	1960
Pre-Primary	2,156	2,259	24	0	1	0	1,363	1,618	64	72	769	641	35	28
1	2,339	2,187	180	106	8	5	943	1,230	40	56	1216	851	52	39
2	2,179	2,084	167	123	7	6	730	972	34	47	1282	989	59	47
3	1,671	1,633	91	107	6	7	446	568	27	35	1134	958	67	59
4	755	1,282	45	88	6	7	225	397	30	31	485	797	64	62
5	238	832	16	65	7	8	73	277	30	33	149	490	63	59
6	134	355	11	26	9	7	49	126	36	35	74	203	55	57
7	42	171	4	38	10	22	6	56	14	33	32	77	76	45
8	59	58	13	3	23	5	25	20	42	34	21	35	35	60
9	51	50	4	4	8	8	9	15	18	30	38	31	74	62
10	48	40	3	4	6	10	9	11	19	27	36	25	75	62
11	52	52	4	6	7	11	13	19	26	36	35	27	67	52
12	27	35	3	7	11	20	8	28	29	80	16	0	60	0
TOTAL	9,751	11,038	565	577	6	5	3,899	5,337	40	48	5287	5124	54	46

RETARDATION IN THE BORDERTOWN DORMITORIES
AS OF NOVEMBER, 1960
(Total Enrollment to Above Date.)

GRADE	TOTAL ENROLLMENT	UP-TO-GRADE		1-YEAR RETARDED		2 OR MORE YEARS RETARDED	
		Number	Percent	Number	Percent	Number	Percent
Pre-Primary	30	0	0	29	97	1	3
1	49	30	61	10	20	9	18
2	115	43	37	52	45	20	17
3	194	47	24	105	54	42	22
4	215	48	22	121	56	46	21
5	287	78	27	145	50	64	22
6	276	52	19	136	49	88	32
7	210	42	20	86	41	82	39
8	161	36	22	64	40	61	38
9	178	39	22	67	38	72	40
10	189	22	12	53	28	114	60
11	141	22	16	41	29	78	55
12	90	9	10	40	44	41	45
TOTAL	2,135	468	22	949	44	718	34

a foreign language and adopt a new and conflicting set of cultural values; different motivations; the expectation of teachers and even of parents that the child make a rapid adaptation to the requirements of successful competition for "good grades" with non-Indian children, and a host of other obstacles lie in the way of easy transition. Some children succeed with comparative ease; some lag behind; some, unable to identify themselves with the "inside group" at school, insulate or isolate themselves from their surroundings and make little progress; some become emotionally disturbed.

As the Navajo education program has moved forward in the past decade, emotional and other problems affecting the adjustment of the children involved have increased. The need to attack and resolve these problems has been recognized in the recent past by Tribal officials, educators inside and outside the Bureau of Indian Affairs, the Public Health Service, and by Colleges and Universities in the surrounding area.

In the spring of 1960 a conference was sponsored by the New Mexico Department of Public Health, the Bureau of Indian Affairs, the Public Health Service and the National Institute of Mental Health to consider the "Emotional Problems of the Indian Students in Boarding Schools and Related Public Schools." The Conference approached the subject field in both general and specific terms, and a number of knowledgeable leaders in Indian Education, anthropology and mental health made significant contributions toward a better understanding of the causative factors involved, as well as recommendations for identification, definition and solution of the problem. Improvement of the "climate" of the boarding schools, the institution of staff In-Service education and the completion of necessary research in the field of social adjustment as it involves Indian schoolchildren, were among the recommendations growing out of the conference.

Actually, a research study was under way at the University of New Mexico, under the able direction of Dr. Miles V. Zintz of the College of Education at that institution. The study had begun in 1957, sparked by the late Dr. Lloyd S. Tireman, a widely known and respected specialist in the problems of bilingual (bicultural) education, and former head of the College of Education at the University of New Mexico; it was promoted by the Education Policies Commission of the New Mexico Education Association. The results of this painstaking research, financed by a grant of $65,545 from the U.S. Office of Education, were published in mimeographed form in 1961, under the title *The Indian Research Study — Final Report.*

The New Mexico Study offers positive recommendations for (1) the identification and definition of factors of cultural and environmental differences between Indians and non-Indians; (2) the alleviation of conflicts which arise because of differences in culture; (3) the adjustment of the school curriculum in the light of cultural differences and conflicts; (4) the improvement of parental understanding and cooperation in all aspects of the problem; and (5) the improvement of teacher preparation (pre-service and in-service) in view of the inter-cultural problems to be faced. The study is a valuable contribution to the improvement of Indian education generally, and to the solution of many of the problems faced by the teachers of Navajo children specifically.

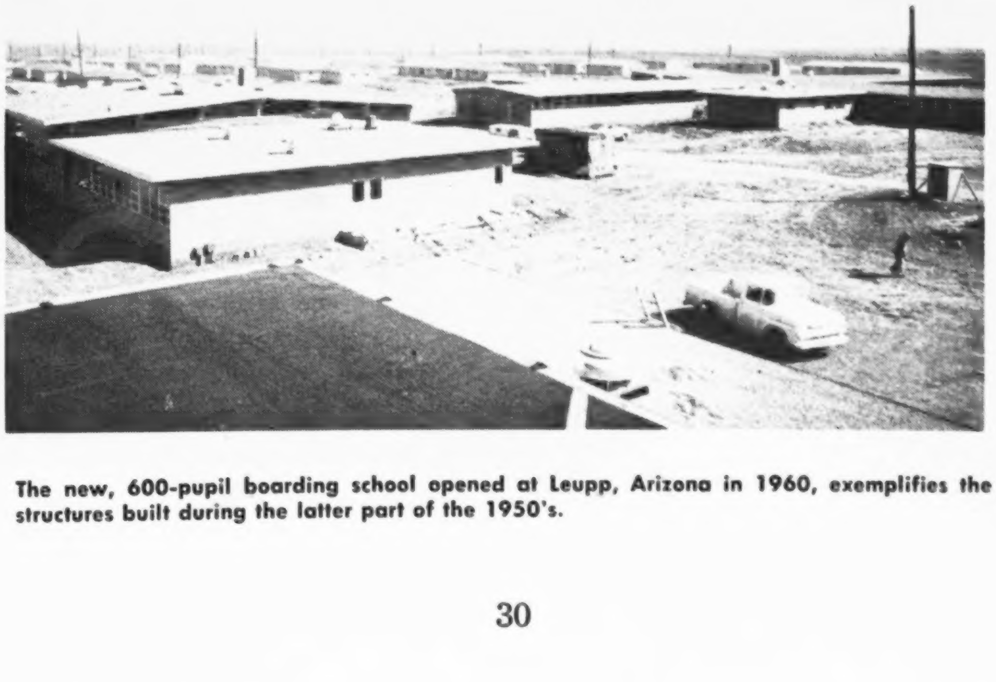
The Navajo School System

The school system serving the Navajo Tribe is a highly varied and far-flung operation including mission schools, public schools, and facilities operated by the Bureau of Indian Affairs. The latter include day operations, trailer schools, bordertown and Reservation dormitory operations and off-Reservation Boarding Schools.

1. *The Boarding Schools:* The Bureau operates 49 boarding school facilities on the Navajo Reservation.

The Reservation Boarding school system, at the close of the decade of the 1950's, still included 3 ancient and decrepit facilities which were scheduled for replacement at the time the Long Range Act was passed in 1950. These were among the early boarding schools constructed about a half century ago in the Reservation area, and they are located at Toadlena, Shiprock and Crownpoint, in New Mexico. The old San Juan school at Shiprock remains in use as a classroom facility. During the past decade three of the oldest were abandoned, replaced or rehabilitated (including the Fort Defiance Boarding School, closed in 1959; Fort Wingate where extensive repairs were made to old buildings which were found to be serviceable and where the older, unserviceable buildings were replaced with new construction; and Chinle, where a new boarding facility was completed in 1960). The old Crownpoint school was closed at the end of the 1960-61 school year because of its hazardous condition, and it is scheduled for replacement with a new, 450-pupil facility, at a cost of $3,800,000 in fiscal year 1962. Likewise, the old Toadlena school plant is scheduled for replacement, in 1962, with a new facility, at a cost of $1,480,000.

The 1000-pupil Shiprock Boarding School, begun at the close of the decade of the 1940's, was completed and further expanded during the first half of the following decade.



The new, 600-pupil boarding school opened at Leupp, Arizona in 1960, exemplifies the structures built during the latter part of the 1950's.

The Reservation public schools have grown to assume an ever-increasing share of the educational burden in the Navajo Country, but in view of the fact that these can operate only on a day basis and cannot thus reach the total school age population by bus over the existing road system, the operation of boarding schools will continue to be required for many years to come.

Total enrollment, day and boarding, in the 49 Reservation Boarding facilities was 8,894 at the end of the decade (1960-61 school year), contrasting with 6,009 pupils in comparable types of accommodations in 1950-51 (including those housed in substandard, makeshift dormitories before the construction of new dormitory facilities to convert the former day schools to a boarding basis).

The old boarding schools were used intensively during the decade in an all out effort to provide educational opportunities to the entire school-age population, despite the fact that they had been described generally as no longer serviceable by Dr. Sanchez and other investigators in the late 1940's. As pointed out in a preceding paragraph, three of the older facilities were replaced, abandoned or rehabilitated at or near the end of the decade. In fact, closure of the old Fort Defiance Boarding School in the late spring of 1959, because structural weaknesses made it unsafe, reduced the boarding school enrollment below the level (9,124) of the preceding year. This decline was subsequently offset in the 1960-61 school year by the opening of new boarding facilities at Chinle, and Leupp, raising total enrollment in Reservation boarding schools to 9,850.

It is to serve the needs of this segment of the Navajo school system, in its present and projected form that the new dormitory building program, as well as a large part of the new classroom construction will be required.

2. *The Federal Day Schools:* As discussed elsewhere in this section, the educational development program of the 1930's was concerned primarily with the construction of day school facilities on the Navajo Reservation. Forty-three new schools of this type were built and operated on a day basis, until the outbreak of World War II, in combination with other factors, made day operation unfeasible or impossible at most such locations. In some instances schools were abandoned; in other instances they were operated on a boarding basis through the use of makeshift dormitory arrangements. A few schools continued to operate on a day basis during this period.

At the beginning of the decade of the 1950's, the Bureau of Indian Affairs operated 13 day schools, enrolling 705 children, and located at Bellmont Ordnance Depot, Cornfields, Church

(Upper) The Shiprock Boarding School dormitories offer adequate space for a variety of recreational activities, including pool - - - - (Center) And other games, as well as - - - - (Lower) A nook where the barber can work in the evening.

Rock, Ganado, Iyanbito, Many Farms, Leupp, Nava, Nazlini, Round Rock, the Fort Defiance TB Sanatorium, Sawmill and Window Rock.

At the close of the decade of the 1950's, (the 1959-60 school year) the Bureau continued to operate 11 facilities classified as Day Schools, enrolling a total of 545 students. These facilities are located at Blue Gap, Salina Springs, Smoke Signal, Borrego Pass, Bread Springs, Iyanbito, Jones Ranch, White Cone, Beclabito, and Red Lake.

In addition, there were 15 trailer schools in operation enrolling 526 pupils on a day basis. The Trailer schools are distinguished from the Day Schools on the basis of relative permanency. The former are viewed as temporary operations; the latter are viewed as permanent facilities.

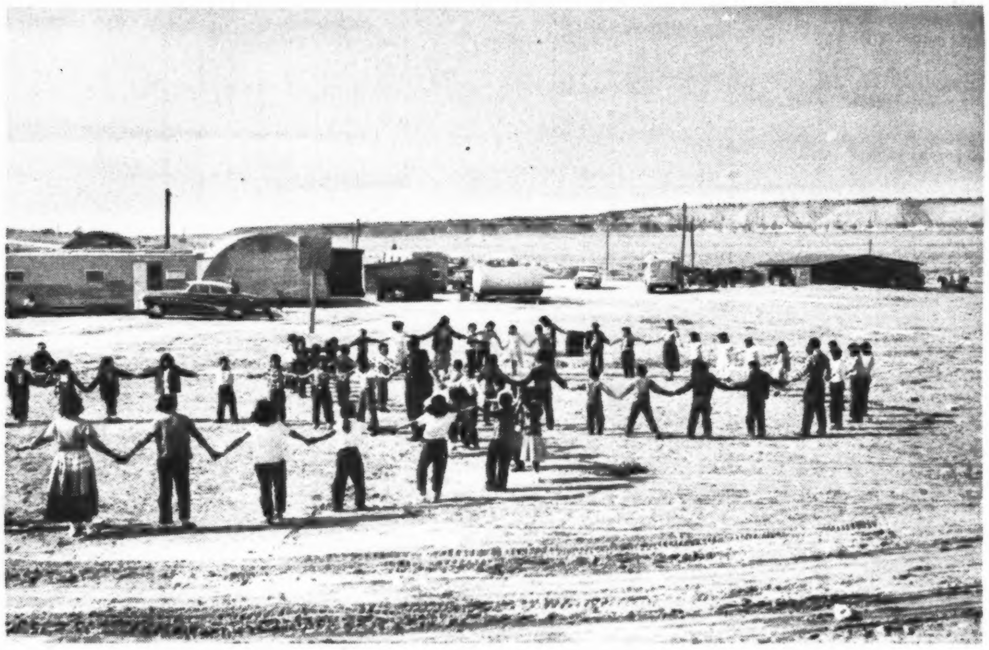
3. *The Trailer Schools:* During the 1952-53 school year trailer schools were introduced at five locations in the Reservation area (Borrego Pass, Kimbeto, Chilchinbeto, Jones Ranch and Sanostee), enrolling 117 day students. In the following school year an additional trailer school facility was located at Black Mountain, and total trailer school enrollment rose to 179. The following year (1954-55) 37 trailer schools were in operation, accommodating 1,119 children.

The trailer schools serve the dual purpose of providing needed classroom space at locations where regular school facilities are not accessible for small children, and of proving or disproving the feasibility of permanent school construction at these locations. Where enrollment and average daily attendance justified, permanent school facilities have been constructed or recommnded, as indicated in the attached tabular summary.

4. *The Reservation Dormitories:* At the close of the decade of the 1950's, the Bureau of Indian Affairs operated 3 Reservation Dormitories, serving 269 children (in the 1959-60 school year). These were located at Huerfano, Naschitti and Mexican Springs, and permit the children to attend class at local or nearby public schools.

5. *The Peripheral Town Dormitory Program:* In conjunction with other aspects of the Emergency Education Program launched in 1954, the Bureau of Indian Affairs entered into agreements with school boards and other responsible individuals in communities located in the area surrounding the Navajo Country, in accordance with which specified numbers of Navajo children were accepted into the local public schools. The Federal Government retained the responsibility for the provision and operation of dormitory facilities, utilizing makeshift structures for this purpose at the beginning (a bowling alley, a tourist court, etc.).

(Upper) The facility located at Borregos Pass, illustrates the Federal Day Schools built during the latter portion of the 1950's. (Center) Not only are the classrooms new, modern and cheerful, but - - - - (Bread Springs Day School.) (Lower) Comfortable, modern living quarters have been provided for the teaching staff. (Bread Springs Day School.)



The White Cone Trailer School operated until 1957, at which time it was replaced by permanent day school facilities.

The Ojo Encino Day School remained in use at the close of the decade of the 1950's.

RECORD OF TRAILER SCHOOL UNITS OPERATED ON THE NAVAJO RESERVATION
1953-1961

School Years	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
Chinle								
Black Mountain	1 unit	Closed - Lack of water moved to Tachee						
Canyon Del Muerto		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	1 unit
Cottonwood		3 units	3 units	3 units	3 units	3 units	3 units	3 units
Low Mountain		3 units	3 units	3 units	Converted to Boarding - Day Operation			
Tachee		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	1 unit
Valley Store		1 unit	1 unit	1 unit	1 unit	1 unit	Facilities tr. to P.S.District	
Whippoorwill		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	1 unit
Crownpoint								
Biggs Store		1 unit	1 unit	Closed - Pupils attend Crownpoint Public School				
Borrego Pass	1 unit	1 unit	1 unit	1 unit	1 unit	Converted to Permanent 4 unit day school		
Bread Springs		2 units	1 unit	2 units	2 units	2 units	Conv.to perm.3 unit day school	
Jones Ranch	1 unit	1 unit	1 unit	1 unit	1 unit	2 units	Conv.to perm.3 unit day school	
Kimbeto	1 unit	1 unit	1 unit	1 unit	2 units	2 units	2 units	2 units
Nageezi		1 unit	1 unit	1 unit	1 unit	1 unit	Closed due water difficulty	
Ojo Encino		1 unit	1 unit	2 units	2 units	2 units	2 units	2 units
Pinon Lodge		1 unit	Closed - Pupils attend new Thoreau Public School					
Springstead		2 units	1 unit	1 unit	1 unit	Closed - Low ADA (7.1)		
Fort Defiance								
Dilcon		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	1 unit
Indian Wells		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	1 unit

RECORD OF TRAILER SCHOOL UNITS OPERATED ON THE NAVAJO RESERVATION
(continued)

School Year	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
Fort Defiance (continued)								
Rock Springs		1 unit	1 unit	1 unit	1 unit	1 unit	Closed-Pupils attend Tse Bonita P.S.	
Sunrise		1 unit	Closed - Pupils attend new Ganado Public School					
Tohlakai		1 unit	1 unit	1 unit	1 unit	Closed - Pupils attend new Tohatchi P. S.		
White Cone		1 unit	2 units	3 units	Converted to permanent 3 unit day school			
Jeddito							1 unit	1 unit
Shiprock								
Hatch's Store		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	Closed-Excessive Cost*
Mexican Water		1 unit	Closed - Low ADA (4)					
Red Mesa		1 unit	Closed - Low ADA (6)					
Sanostee	1 unit	Closed - Moved to Tocito, Pupils attend new Sanostee Boarding School on day basis						
Sheep Springs		1 unit	1 unit	1 unit	Closed only 4 pupils available this year			
Sweetwater		1 unit	Closed - Low ADA (5)					
Tocito		1 unit	1 unit	1 unit	Closed pupils attend Nava Public School & Sanostee			
Tuba City								
Cain Valley		1 unit	1 unit	1 unit	1 unit	Closed - Pupils attend Mexican Hat P. S.		
Cameron		1 unit	Closed - Low ADA (5)					
Chilchinbeto	1 unit	2 units	2 units	2 units	1 unit	2 units	2 units	2 units
Copper Mine		1 unit	Closed - Low ADA (6)					
Cow Springs		1 unit	1 unit	1 unit	Closed - Low ADA (3) Pupils attend Red Lake D. S.			
Dinnebito Dam		2 units	1 unit	1 unit	2 units	2 units	2 units	2 units

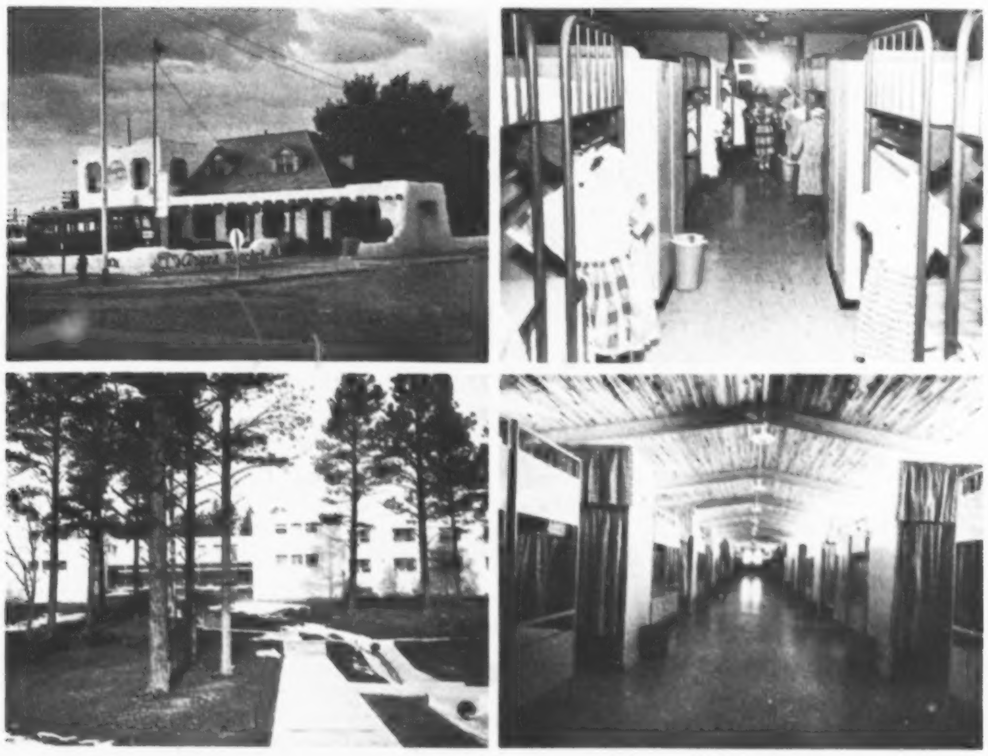
RECORD OF TRAILER SCHOOL UNITS OPERATED ON THE NAVAJO RESERVATION
(continued)

School Year	1953-54	1954-55	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
Tuba City (continued)								
Goldtooth		1 unit	Closed - Low ADA (6)					
Inscription House							2 units	2 units
Oljeto		1 unit	1 unit	1 unit	1 unit	Closed - Low ADA (9.8)		
Red Lake		1 unit	1 unit	1 unit	2 units	2 units	2 units**	2 units**
Sand Springs		1 unit	1 unit	1 unit	1 unit	1 unit	1 unit	Closed-Low ADA(10.5)
Coal Mine							1 unit***	1 unit
No. of Schools	6	37	29	28	23	18	16	14
No. of units operated	6	45	36	37	30	27	24	22

* Operated until January, 1961

** Became a part of Red Lake Day School.
These extra classrooms were required.

*** Installed 1959 but not opened until 1960 due to water difficulty.



(Upper Left) Makeshift facilities, such as the tourist court depicted above, were used to house children during early phases of the bordertown dormitory program, - - - - (Lower Left) But these were soon replaced by modern structures such as the Flagstaff dormitory. (Upper Right) The accommodations afforded by the new dormitories, on as well as off the Reservation, stand in sharp contrast with those of the 1940's, as exemplified by those at Flagstaff - - - - (Lower Right) And at the Winslow Dormitory.

In 1954 the communities of Aztec and Gallup, New Mexico; Holbrook, Winslow and Snowflake, Arizona; and Richfield, Utah, entered into agreements with the Bureau of Indian Affairs providing for the enrollment of stipulated numbers of Navajo children in the local public schools. The agreements were binding for a 20-year period, and to offset the impact of the increased enrollment on the existing public school facilities, the Bureau allowed the payment of $1,000 per capita, based on the number of children the school agreed to accept during the period covered by the agreement, to enlarge the classroom space. In addition, through contracts with the State Departments of Public Instruction, the Bureau agreed to bear the full per capita cost of educating the children. This arrangement was possible under the terms of P. L. 474-81st Congress (The Navajo Hopi Long Range Rehabilitation Act).

The allowance, on a per capita basis, for classroom construction in the bordertowns, and the facilities thus provided, are comparable to federal funds invested in other types of school buildings. The value of appropriated funds used for this purpose is outlined below:

LOCATION	FUNDS ALLOCATED FOR CLASSROOM EXP.	NO. NAVAJO PUPILS COVERED BY CONTRACT AGREEMENT
Aztec	$ 120,000	120
Winslow	300,000	300
Flagstaff	300,000	300
Holbrook	420,000	420
Gallup	500,000	500
Richfield	125,000	125
Snowflake	120,000	120
Albuquerque	350,000	350
TOTAL	$2,235,000	2,235

Since 1954, permanent dormitories have been constructed to house Navajo children enrolled in bordertown programs at all locations except Snowflake and Aztec, and this aspect of the Navajo educational system had become firmly established at the close of the decade. The last permanent dormitory to be completed was that located at Flagstaff, which opened in September of 1958. In July, 1959, the Ramah Dormitory, constructed in 1955, entered the Peripheral Town Dormitory operation. This facility had been operated previously by the United Pueblos Agency in view of the fact that the Ramah Navajo Community is not under the jurisdiction of Navajo Agency. Future planning includes permanent dormitory construction at Snowflake and Aztec.

The Bordertown Dormitory program was designed to accommodate pupils aged 12 years or more who cannot attend other types of schools on a day basis, and who are not retarded to the extent that their enrollment would create a handicap to the public school in the bordertown where they are enrolled. Secondarily, this arm of the Navajo Educational system accepts children aged 6-11 years, in certain specified situations.[7]

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[7] See School Enrollment Guidelines, publ. in mimeo by Navajo Agency, Branch of Education, 1959-60.

Actually, in 1959-60, of 2,284 Navajo children enrolled in the Bordertown program more than 56% were less than 12 years old. In fact, the enrollment pattern in the 1959-60 school year was as follows:*

GRADE	NUMBER OF STUDENTS ENROLLED
1	64
2	119
3	217
4	312
5	322
6	261
7	195
8	216
9	214
10	190
11	120
12	54
TOTAL	2,284

*Total enrollment at end of school year.

Before the Bordertown Dormitory system can function to meet the primary purpose for which it was designed, the basic Reservation school system, Public, Federal, and mission, must be expanded to permit all children aged 6-12 years to attend school in or near their home communities. As indicated in a preceding paragraph, only 6 of the 73 Reservation schools operated by the Bureau of Indian Affairs in 1960 could accommodate children in grades 1-6 — of these schools, in fact, only 30% offered instruction beyond grade 3. As a result, the Bordertown program has had to absorb a larger proportion of children in the lower age group (6-12 years) than was intended originally.

As the several segments of the Navajo School system develop, and as they assume their respective shares of the educational burden, the Bordertown Dormitory program will no doubt come to serve a much larger proportion of the junior and senior high school students than it can serve at present (1960).

The peripheral town program offers disadvantages (See Adjustment of Navajo Children to the School Environment, above), as well as advantages, to Navajo schoolchildren and to their parents, including the necessity for institutional living. However, the experience gained in the course of attending school with non-Indian children in American communities unlike those that char-

Ample space is available at most Bordertown Dormitories for study and recreation.

acterize the Reservation is a potential advantage to children whose training must be sufficiently broad to permit them to live successfully outside as well as within the Reservation. Opportunities to learn standard English are greatly enhanced outside the Reservation in view of the fact that English remains a "foreign" language within the Navajo area. Children learning the new language must practice with one another, primarily, since the number of native speakers is relatively small; in the bordertowns the number of native speakers of English is proportionately large in contrast with the Navajo population. (See the sketch of the Navajo Language in the Appendix.)

In addition to offering a greatly enhanced opportunity for language learning, the bordertowns introduce Reservation children to a wide variety of the material and non-material elements of the national culture, including television, fire engines, buses, theatres, flagpoles, running water, parks, sidewalks, traffic lights, churches, non-Indian concepts of suitable housing, living space, law, and a host of other commonplace features of non-Indian culture which are largely absent in the Reservation Area.

6. The Off-Reservation Boarding Schools: During the period 1880-1902[8], a number of Indian Boarding Schools were built by the Federal Government at widely separated locations over the western United States. These included:

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[8] See Indians in School, by James E. Officer, Publ. 1956 by Bureau of Ethnic Research, University of Arizona.

SCHOOL	FOUNDED
Chemawa Indian School, Salem, Oregon	1880
Chilocco Indian Shool, Chilocco, Oklahoma	1884
Albuquerque Indian School, Albuquerque, N. Mexico	1886
Haskell Institute, Lawrence, Kansas	1884
Grand Junction School, Grand Junction, Colorado	1886
Sante Fe Indian School, Santa Fe, New Mexico	1890
Fort Mojave Indian School, Ft. Mojave, Arizona	1890
Stewart Indian School, Carson City, Nevada	1890
Phoenix Indian School, Phoenix, Arizona	1891
Sherman Institute, Riverside, California	1902

These, and other off-Reservation boarding facilities, were constructed to serve the educational needs of a variety of Indian Tribal groups, operating on the premise that success hinged upon divorcing the Indian child from parental influence and from his reservation environment. As the years passed, changing conditions brought public schools to many reservation areas, and the need for the old boarding facilities declined so far as the tribal groups originally served by these institutions were concerned. While progress was made by some groups, the Navajo and the Papago, as Officer[9] observes, lagged far behind. It was not until the period following World War II that the Navajo became aware of the urgent need for education and, as recently as 1947-48, there was school space available in the Reservation area for only 9,900 Navajo children — less than half (about 41%) of the then existing school age population. Furthermore, the educational problem was complicated, with reference to the Navajo, by the fact that many children, well over 6 years of age, had never been to school — some were in their teens, nearly ready to marry and face the problem of making their own living. The younger children were seriously retarded — the older children were hopelessly so, so far as the conventional school program was concerned. If the dual problem of (1) finding school space to accommodate the large number of children who suddenly demanded educational opportunities and (2) coping with the serious retardation of a large segment of the school age population, was to be met successfully, circumstances demanded that it be met in part through an unconventional approach. The alternative to the development of a special solution for the problem was a continuing backlog of illiterate, untrained Navajo children, handicapped by virtue of the fact that they lacked the opportunity for an education, and tied for life to the meager resources of the Reservation area.

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[9] Op. cit. supra.

Outside the Navajo Country the old off-reservation boarding schools were no longer essential to meet the educational needs of more highly acculturated Indian groups — they could attend public schools. As a result, as early as 1946, space was made available at Sherman Institute for 290 Navajo children, ranging in age from 12-18 years. The members of this pioneer group had little or no previous school experience — in fact, they could neither read, write or even speak the English language. Most of them had never before been away from their Reservation homeland, and they were so seriously retarded, with reference to schooling, that unless they could receive some modicum of education quickly, they would be destined to enter life untrained for successful competition with their more fortunate fellow citizens. They could not, as young men and women on the threshold of adulthood, hope to enter school as conventional beginners; a special educational program, based on special curricula and involving special educational techniques, was required.

As a result, in 1946, at Sherman Institute, the Special Five Year Navajo Educational Program was born. Utilizing teacher-interpreters and instruction in the Navajo as well as in the English language, the children were provided with basic knowledge of spoken and written English, training in social adjustment and vocational skills over the course of five years of intensive training. Experience gained in the first and in subsequent years during the initial phases of the program pointed the way to improvements in technique and in curriculum, and definitively demonstrated the feasibility of the Special Program. After 1946, other boarding schools entered the Special Navajo Program.

In 1947, enrollment increased to 915 and, with the entrance of Intermountain in 1950, enrollment (1950-51 school year) at Albuquerque, Chemawa, Chilocco, Haskell, Intermountain, Phoenix, Sherman, Stewart, Cheyenne-Arapahoe, Fort Sill, and Riverside (Oklahoma), totalled 3,431 Navajo children. By 1957, enrollment had risen to 6,560, but by this date the original Special Program had been modified in many ways to meet the special requirements of a student body of which not all members were as seriously retarded as earlier groups had been. By 1954, it became apparent that specialized training was needed for some segments of the student body in the off-Reservation program to permit them to overcome less serious forms of retardation to subsequently take their place in regular school programs; others still required a terminal type of special accelerated curriculum. As a result, in 1957, 960 of the off-Reservation pupils were enrolled in regular educational programs; 5,600 were placed in the Special Program. At the close of the decade, in 1960, 3,880 Navajo

The former Bushnell Hospital at Brigham City, Utah, was converted to school use in 1949-50, and entered the off-Reservation program in 1951.

Many of the off-Reservation schools, such as that at Phoenix, have been modernized and expanded to offer pleasant surroundings to Navajo children from the Reservation.

children remained in special Navajo programs of one type or another, and the remainder were in the regular program. There were 6,618 children in the off-Reservation schools in the 1959-60 school year.

This colossal effort was the first major "crash" program developed and carried out by the Bureau of Indian Affairs in an effort to provide educational opportunities for a large number of Indian children reared in a society that had just awakened to the essential need for formal education as a foundation for successful living in a new and changed environment. It is, at the same time, a monument to the ingenuity of its founders. The program rendered an invaluable service to a large segment of the Navajo Tribe, freeing them from dependency on the Reservation and opening the way to a richer life for this group of people, caught as they were in the throes of transition from the traditional society to a radically different way of life.

The desire and determination of Navajo parents to provide their children with an education was also an important ingredient in the success of the Special Program. They took over the herding and other chores that traditionally fell to the children and accepted the long separation necessary to education in areas far removed from the Navajo Country.

As it was pointed out above, there has been a steady decline in the past three years in the number of Navajo children requiring the special curriculum and the special techniques associated with the original Special Five Year Navajo Educational Program. This decline, as the number of educationally retarded children decreases, is reflected in Special Program new enrollment figures for 1959 and 1960, which stand at 523 and 332 respectively.

Graduates from the Special Program are summarized in the table below for 1959, 1960, and 1961.

SCHOOL	1959			1960			1961		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Albuquerque	17	15	32	10	10	20	23	17	40
Chemawa	65	46	111	51	44	95	60	28	88
Chilocco	27	15	42	23	13	36	37	27	64
Intermountain	104	84	188	94	72	166	98	61	159
Phoenix	17	30	47	19	21	40	11	12	23
Sherman	63	60	123	50	43	93	70	42	112
Stewart	25	9	34	12	15	27	12	15	27
Total	318	259	577	259	218	477	311	202	513

A placement program, operated by the several off-Reservation schools in cooperation with the Branch of Relocation Services, has been successful in finding steady employment, outside the Reservation area, for graduates from the Special Program, and over two-thirds of these young people have remained independent of Reservation resources.

7. *The Mission Schools*: In the introductory portion of the section on Education the role of mission groups in early educational efforts on the Navajo and other Indian Reservations was touched upon. The Federal Government entered into contracts with mission groups who in turn provided teaching personnel or, in some instances the physical facilities as well. During the period 1869 to 1897 the conduct of Indian educational programs was almost entirely in the hands of mission groups, subsidized to varying extents and in various manners by the Federal Government. However, in 1897, "the Congress declared it to be the policy of the Government thereafter to make no appropriation whatever" to subsidize, through contractual arrangements, the operation of sectarian schools serving Indian groups.[10] Previously, through the medium of such contracts, it had been possible to provide educational opportunities to Indians where none existed otherwise, and the dual objective of Christianization and acculturation of Indians was thus promoted at minimum expense to the Government. For a time, after 1897, contracts continued to be made, using treaty and tribal funds on request by Indian groups. However, in 1905 this expedient was adjudged to be contrary to the intent of Congress and, in 1917, a statute was enacted providing that "no appropriation whatever out of the Treasury of the United States may be used for education of Indian children in any sectarian school."

In view of the fact that all of the mission schools serving the Navajo were established after 1897, sectarian education on the Navajo Reservation has been financed entirely by church and other non-Federal funds. However, several missions acquired their lands in fee simple within the Reservation area, either on the basis of the Act of March 3, 1909 (35 Stat. 781) which "authorized and directed" the Secretary of the Interior to issue patents in fee simple to any duly authorized religious organization engaged in mission-school work on any Indian Reservation for such lands as those groups occupied for mission or school purposes, or in other manners they acquired title to the lands they use. Prior to the establishment of the Navajo Tribal Government, the Secretary issued permits or set aside land without reference to the will of the Tribe concerned. Since the developmnt of the Tribal Council, Reservation land is withdrawn for mission use only when such withdrawal is recommended by the Tribal Council, and the groups for whom such areas are withdrawn receive no title to the acreage involved.

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[10] Felix S. Cohen, Handbook of Federal Indian Law, p. 242.

Of the numerous mission and parochial schools operating in the Reservation area or otherwise serving Navajo education, the four largest remain those established near the turn of the century at Farmington and Rehoboth in New Mexico and at Ganado and St. Michaels in Arizona. These institutions accommodate about 64% of all Navajo children attending mission schools. A brief sketch of these and other sectarian schools is appended below.

A. *Navajo Methodist Mission School — Farmington, New Mexico*: This facility was first established, as a mission, in 1891 at Hogback, 20 miles west of Farmington. In 1903, it was relocated to another site, and it was moved to its present location in 1912. It presently offers elementary and high school opportunities for 250 students, of which more than 90% are Navajo. With few exceptions, the student body resides in dormitories located on the school campus.

The first school classroom was opened in 1899 with an enrollment of 13 Navajo children in the first grade. A high school was added in 1935, and the first graduating class was that of 1939. Since the inception of this school operation, more than 1,200 Navajo young people have received one or more years of schooling at Navajo Methodist.

The parents of enrolled children bear a small share of the financial burden of operating the facility, in the form of a $50 annual tuition. In addition, older children must work 11 hours per week for their board and room. Only about 10% of those who make application can be admitted to this institution which distributes its benefits to Navajos in all walks of life.

B. Ganado Mission School — Ganado, Arizona: The first Presbyterian mission to the Navajo was established, in 1901, at Ganado, Arizona, and in 1902 an elementary school was organized in the home of a missionary. It was not until 1906, however, that regular classes were begun in a small space set off by partitions in the rear of the church. In 1911, a hospital was opened at Ganado.

From its inception in 1902, the elementary school grew, although with the opening of the Ganado Public School in 1954, grades 1-3 were discontinued at the mission school. The facility continues to serve about 70 elementary children in grades 5-8, with an additional 120 in the high school which was opened in 1930. About 70% of the student body is Navajo; the remainder are Hopi or non-Indians.

Dormitories are operated to serve the needs of children who live beyond ready commuting distance, and an annual tuition of $150 paid by the parents of enrolled children defrays a fraction of the operating expense. In addition, parents pay $5 per year for medical care of enrolled students and $7 to $15 for textbooks. Piano lessons are also available at a nominal cost of $10 per year.

C. St. Michaels Indian School — St. Michaels, Arizona: In 1898, a mission to the Navajo was established at the location in reference by the Franciscan Order, and in 1902 the first Roman Catholic Mission School on the Navajo Reservation was opened by the Sisters of the Blessed Sacrament. In its first year of operation the new school enrolled 21 Navajo students aged 8-12 years.

The facility was expanded across the years; a high school was added in 1946, and the student body now comprises about 300 students, of which about 180 are in the elementary grades and the remainder are in high school. About 70% of the student body is Navajo; the remainder includes Hopi, Laguna, Pima, Shawnee, Acoma and other Indian children, as well as a few non-Indians.

Since its inception 58 years ago, more than 4,500 Navajo young people have received one or more years of their schooling at St. Michaels, and the construction of a new, modern high school building in 1949, with space for 400 children, allows ample opportunity for expansion of the program at this installation.

A fraction of the operational cost is borne by parents of enrolled children through the payment of a tuition of $75 per year for elementary children and $100 for high school children.

Since the completion of the Window Rock Public School in 1955, grades 1-3 have been discontinued at St. Michaels.

D. Rehoboth Mission School — Rehoboth, New Mexico: The first mission operation at Rehoboth, located about 5 miles east of Gallup, New Mexico, was established in 1898 by the Christian Reformed Church. The first classroom was opened by this group in 1903 with an enrollment of 6 Navajo children. A high school was added in 1946.

The Rehoboth elementary school enrolls about 112 children, and the high school enrolls about 55. Approximately 80% of the student body is Navajo, and the majority of the students reside in dormitories maintained on the school campus.

An annual tuition of $50 for elementary children and $75 for high school students ($40 for children who attend on a day basis) plus a $12 fee for health services and text books, defrays a small fraction of the operational costs.

9. Navajo Mission School of Seventh Day Adventists: This facility is located near Holbrook, Arizona, and was founded in

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1947 by the Seventh Day Adventist Church. Initial enrollment was 25, a number which had grown to 142 in the 1959-60 school year. The school instructional program extends from grade one through eleven, and the enrollment is almost entirely Navajo.

A day school, enrolling 20 Navajo children, is also operated near Indian Wells, Arizona. The latter offers instruction in grades one through four.

A nominal tuition of $30 for elementary and $35 for high school students defrays a small share of the operational cost.

F. Navajo Gospel Crusade Mission School — Gallup, New Mexico: Founded in 1954, and opened in the fall of that year with an enrollment of 12 children, this facility had an enrollment of 15 children in 1959-60, and offered instruction in grades 2 through 8.

G. Sacred Heart Academy — Waterflow, New Mexico: This school, founded and operated by the Ursuline Sisters, offers grades 1 through 12, and enrolls 156 students, including 41 Indians.

H. Lybrook Mission — Church of the Brethren — Lybrook (Cuba), New Mexico: This facility, founded in 1953, enrolls 37 pupils in pre-first through grade five at present. Initial enrollment was 12, although it increased to 18 during the course of the term.

I. Rough Rock Friends Mission — Rough Rock (Chinle), Arizona: This facility, founded in 1956 by the Rocky Mountain Yearly Meeting of Friends Church, opened with an enrollment of 13 Navajo children. It serves grades 3 through 8, and enrolled 19 Navajo children in 1959-60.

J. Immanuel Mission — Sweetwater (via Shiprock), New Mexico: The school in reference was founded in 1948 by the Plymouth Brethren Church group, and opened in that year with an enrollment of 6 children. In the 1959-60 school year, 39 children, including 34 Navajos and 5 non-Indians, were enrolled in grades 1 through 7.

K. Mennonite Mission and Boarding School: This installation, established in 1951 with an initial enrollment of 27, is operated by the Church of God in Christ, Mennonite. Enrollment in 1959-60 had risen to 50 children, and these ranged from pre-first graders through grade eight.

A nominal tuition fee of $10 per student is charged. In addition to classroom instruction, this school provides child care services, first aid, public bathing and laundry facilities. Also, the mission carries on a small, experimental livestock, agriculture and irrigation project served by a gravel pack irrigation well by way of adult education.

L. Rock Point Mission — Global Gospel Fellowship, Inc. — Rock Point (Chinle), Arizona: In 1953, the first installation was established as a Lutheran Faith Mission, and it was not until 1957 that an elementary school (serving other than the children of staff members) was opened. Children are accepted from the local Bureau School beginning with grade 3, and instruction is offered through grade 8.

In the 1959-60 school year, 25 Navajo children were enrolled, and of this group 16 resided in dormitory facilities operated by the mission; the remainder attended school on a day basis.

A tuition of $10 per day defrays a small fraction of the operational cost.

The facility also provides a 5-bed hospital, staffed by a doctor and two nurses.

M. Navajo Bible Academy — Navajo Gospel Mission — Hard Rocks (Oraibi), Arizona: Although summer school sessions were conducted in 1940 and 1941, a conventional school was not opened until 1941-42. With an initial enrollment of 5 Navajo children, the student body has since grown to 60 in the 1959-60 school year. The school offers instruction in grades beginner through 8.

In addition to classroom instruction, the facility provides a 3-bed clinic staffed by three registered nurses, public bathing and laundry facilities.

Children enrolled at the school are housed in a school dormitory if they are unable to commute on a day basis.

Other sectarian schools located on or near the Reservation, as well as mission schools located at more distant points serve small numbers of Navajo children. These include the Tucson Indian Training School (Presbyterian) in Tucson, Arizona, the Indian Training and Bible School (Church of the Nazarene) in Albuquerque, New Mexico, the Southwest Indian School (World Gospel Mission) in Glendale, Arizona, the Cottonwood Children's Home, near Cottonwood, Arizona, St. Catherine's Indian School at Santa Fe, New Mexico and St. Christopher's Mission School at Bluff, Utah. Other missions, such as the Navajo Gospel Crusade in Cortez, Colorado, operate summer schools for evangelical purposes.

There are about 20 mission schools in the Navajo area, on and off the reservation, enrolling about 1,300 Navajo students in 1960. In addition to the provision of classrooms, most such installations also provide other public services including public baths, laundry facilities, first aid, transportation to established clinic and hospital facilities, domestic water, etc. Also, some of the missions operate major clinic and hospital services (Brethren in Christ Hospital at Huerfano, New Mexico, the Ganado Hospital, the Rehoboth Hospital, the St. Christopher Episcopalian Hospital, and similar facilities).

In some instances, changing circumstances have obviated the need for services which, at an earlier period, would have been lacking if they had not been available from Reservation missions. Thus, for example, the (Episcopalian) Good Shepherd Mission at Fort Defiance, founded in 1894, operated the first hospital serving the Navajo Tribe. This facility was completed and accepted its first patient in March 1897.[11] Operation of this essential service continued until 1929. After 1911, this facility concentrated its efforts on the control of trachoma and became widely known for its pioneer work in the field of health.

Although from its inception, Navajo children lived at the mission, at first coming as patients; later predominantly as trachoma cases; and finally as orphaned and abandoned children, no school was operated until 1927 when classes were provided for children who were patients in the mission hospital. When the latter facility closed in 1929, the school was expanded to accommodate the children of the orphanage and the community. Closure of the hospital followed expansion of Federal health facilities obviating the need for the mission installation. Likewise, in 1942, the school was closed because sufficient local schools had been developed to meet immediate need.

8. The Reservation Public Schools. In 1890, the Federal Government adopted a policy of enlisting the aid of the public schools, wherever possible, in the Indian education program. However, in view of the non-taxable status of Indian Reservation lands, State Departments of Public Instruction could not carry the burden of Indian enrollment without Federal aid. Although public funds were used in various manners after the turn of the century to assist public schools enrolling reservation Indian children, the greatest impetus to the public school movement was given by passage of the Act of April 16, 1934 (48 Stat. 596), commonly known as the Johnson-O'Malley Act. This piece of legislation authorized the Secretary of the Interior "To arrange with states or territories for the education, medical attention, relief of distress, and social welfare of Indians ----." The Act was amended in 1936 to clarify and broaden its provisions somewhat. Specifically, the amendment provided (1) that the Secretary of the Interior could enter into contracts with States, Counties or other political subdivisions, or with State universities,

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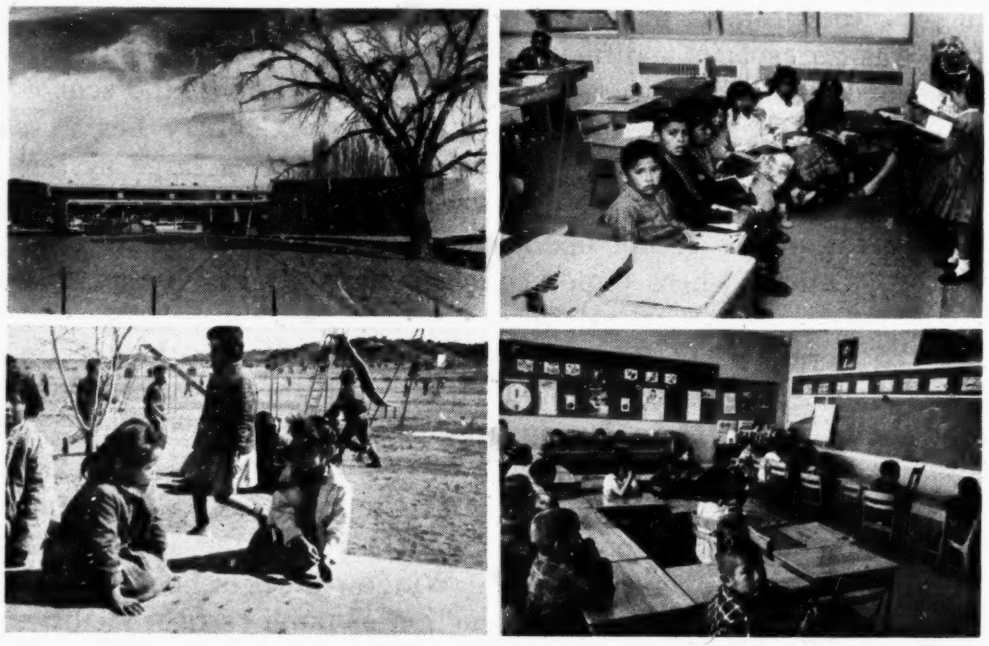
[11] See Good Shepherd Mission, 1894-1961 publ. 1961 by Good Shepherd Mission, Fort Defiance, Arizona.



(Upper Left) The Tuba City Public School, authorized for construction in 1954, under Public Law 815, is typical of the fine school plants serving many Reservation communities, built on the Reservation during the period after 1952. (Lower left) Children at the Ganado Public School enjoy the well-equipped playground during recess. (Lower Right) Leupp Public School. (Upper Right) Chinle Public School.

colleges or other types of schools for the provision of educational, medical and other services to Indians; (2) the Secretary could permit the contracting party to use existing Federally-owned buildings and equipment in carrying out the terms of the contract; and required that (3) in carrying out the terms of the contract, the state maintain its standards of service to Indians at a level comparable to that governing the provision of similar services to non-Indians.[12]

During the latter portion of the decade of the 1940's the demand for schools on the part of the Navajo Tribe included a demand that the Federal schools be replaced with public schools on the premise that the two systems differed essentially in their objectives, curricula and teaching methods. At the same time, the long standing policy of the Congress and the Department of the Interior was reemphasized as one aimed at taking the Federal Government "out of the Indian business" by providing services to Indians on a par with other citizens, but from the same sources as those which serve the American public generally.

In view of the large tribal population, the extensive Reservation area, the lack of adequate roads and other limiting factors, the problem of educating the Navajo school age population was an especially difficult one requiring the continued operation of boarding facilities to serve a large portion of the school-age group. The states in which the Navajo Country lies were neither equipped nor did they desire to operate a large system of boarding schools, although they were willing to assume responsibility for public school operation on the Reservation at some of the locations where pupils could attend on a day basis. The existing Reservation schools were studied by State officials during the period after 1950, and in the 1952-53 school year the State of New Mexico accepted transfer of the former Federal Day School at Mexican Springs, providing both a dormitory and a classroom operation in 1953-54. In the same year New Mexico accepted the former Federal school at Church Rock, and Arizona assumed operation of that at Sawmill; a year later, in 1953-54, Arizona accepted operation of the Window Rock school.

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[12] See Indians In School, by James E. Officer, Publ. 1956 by the Bureau of Ethnic Research, Department of Anthropology, University of Arizona.

In 1955 and 1956, the construction of public school facilities permitted the closure of the former Federal schools at Moenave, Pinon Lodge, Ganado, Cornfields and Sunrise, and in 1957 those at Tocito and Sheep Springs were discontinued. The children formerly enrolled at these locations were accommodated by public schools.

Increased enrollment of Navajo children in public schools situated within the Reservation boundaries was made possible, after 1952, by application of the provisions of an Act known as Public Law 815, amended subsequently in 1953 (Title IV) and 1955, designed to permit Federal subsidization for the construction of school buildings in areas of "Federal impact" — i.e. where schools were required to serve the children of Federal employees at military bases and defense installations, but where the property was not subject to taxation necessary to absorb the cost.

Applicability of the provisions of P.L. 815 to Indian Reservation areas was explored and it was found to be applicable. With amendment of the Act in 1953, specific provision was made for the aid of School Districts with heavy Indian enrollment, but which had been unable to qualify previously. In its broadened form, P.L. 815 funds could be utilized, not only for the construction of school facilities on Reservation land, but also for the expansion of public school facilities located outside the Reservation wherever such schools were willing to enroll Indian children from Reservation areas.

The first public school built on the Navajo Reservation with funds appropriated under P.L. 815 was that located at Fort Defiance, Arizona. This facility, authorized for construction on August 14, 1952, was completed at a cost of $1,203,622 and opened in January, 1954. (It was expanded subsequently.) A few months later, a similar school plant, authorized on October 23, 1952, and built at a cost of $1,132,890 was opened at Ganado.

Until 1957, the progress of this program was hindered in Arizona by a State statutory requirement that Federal funds for school construction purposes could be accepted only after an affirmative vote of the real property owners resident in the District. In some School Districts on the Reservation there were few, if any, persons who could qualify as real property owners. In 1957 the Arizona State Legislature removed this obstacle.

In New Mexico, all rural public schools are administered by County Boards of Education, and the latter are fully authorized under State law to accept Federal funds for the construction of necessary school facilities without referral to the real property owners. With the addition of Title IV in 1953, a number of applications were submitted for public school construction or expansion, on and off the Reservation, to serve Navajo enrollment.

THE VALUE OF FEDERAL CONTRIBUTIONS TO NAVAJO EDUCATION

The Long Range Act authorized the appropriation of $25,000,000 to meet the need of school construction on the Navajo Reservation during the first three years of the decade, to thus meet the requirements of about 55% of the existing school age population. It was assumed that population shifts during the 10-year period of the Program would require periodic modifications of school construction policy and planning. The Sanchez Report of 1946-47 had placed the cost of an adequate Reservation school system at $90 million (on the 1945 construction market), and Dr. Sanchez developed his recommendation on the premise that older children (totalling 25% of the school-age group) would continue their education outside the Reservation area.

The amount authorized by P.L. 474 was made available during the decade, and in addition significant contributions of Federal funds were appropriated for Navajo education in the form of public school construction on and off the Reservation.

The exact value of Federal appropriations of the several types (Federal School expansion and construction, public school construction on and near the Reservation, and classroom expansion in public schools located in the Reservation area) to the Navajo Education program cannot be computed on the basis of available data. All of the public schools constructed with funds appropriated under P.L. 815 include non-Indian as well as Navajo enrollment, and the proportion varies with location of the school

DISTRIBUTION OF NAVAJO TRIBAL SCHOLARSHIP
RECIPIENTS BY SECULAR AND DENOMINATIONAL
SCHOOLS
1953 - 1960 (1)

School Year	Secular Schools Number	Secular Schools Percent	Denominational Schools Number	Denominational Schools Percent	Total Scholarship Recipients
1960 - 1961	310	86.0	51	14.0	361
1959 - 1960	164	80.0	42	20.0	206
1958 - 1959	147	83.0	30	17.0	177
1957 - 1958	115	80.4	28	19.6	143
1956 - 1957	57	66.3	29	33.7	86
1955 - 1956	54	72.0	21	28.0	75
1954 - 1955	54	76.1	17	23.9	71
1953 - 1954	18	72.0	7	28.0	25

(1) Excludes barbering, carpentry and similar vocations, but includes secretarial, business, nursing, etc.

plant. Some public schools of this type were justified primarily on the basis of Navajo need (Ganado, Window Rock, Tuba City, for example); others constructed in the Reservation area were justified primarily on the basis of non-Navajo enrollment (Page, for example). In these schools, Navajo enrollment ranges from a proportion as low as 10% of the total student body to one as high as 95%. As indicated in the accompanying table, the total cost of school plants constructed during the decade of the 1950's with funds appropriated under P.L. 815 was $20,212,118. On the premise that between 65% - 70% of the total student body enrolled in these facilities was Navajo, it would appear to be reasonable to ascribe a value of no less than $13.5 million of this cost to Navajo education, thus raising the total of Federal funds allocated for school construction during the period 1950-1960 to about $49,000,000, as indicated below.

Federal Funds for Bureau School Construction	$33,273,500
Federal Funds for P.S. Classroom Expansion	2,235,000
Federal Funds for P.S. Construction	13,500,000
TOTAL	$49,008,500

PUBLIC SCHOOLS SERVING NAVAJO CHILDREN IN RESERVATION AREA CONSTRUCTED UNDER P.L. 815 1950-60

Location of School	Type of School (1)	Date Authorized	P.L. 815 Funds Allocated	Navajo Enrollment 1960-61		Total Navajo Enroll-ment	Grades Offered
				6-12 yr old	13 yrs & over		
Bloomfield:			($ 563,949)	220	12	232	12
	H	5-11-56	85,500				
	E	3-26-58	147,000				
	H	6- 1-59	331,449				
Chinle:			(2,216,907)	541	259	800	12
	E	3-24-58	1,039,407				
	E	12-15-60	298,400				
	H	12-15-60	879,100				
Churchrock:			(523,319)	207	39	246	6
	E	6-14-57	392,905				
	E	11- 2-59	130,414				
Crownpoint:	E	4-19-55	660,351	429	23	452	9
Cuba: (3)	H	7- 2-56	597,873	122	40	162	12
Gallup: (4)			(2,184,510)	234	151	385	12
	E	11- 2-59	138,821				
	E	9-23-54	300,000				
	H	1-22-60	1,586,426				
	H	2- 3-53	159,263				
Ganado:			(1,587,143)	404	75	479	8
	E	10-23-52	1,132,890				
	E	6- 6-57	91,753				
	E	5-28-58	362,500				
Kayenta:	E	5-15-58	373,320	90	90	180	8

Continued

Location of School	Type of School (1)	Date Authorized	P.L. 815 Funds Allocated	Navajo Enrollment 1960-61		Total Navajo Enroll-ment	Grades Offered
				1-12 yr old	13 yrs & over		
Kirtland:			($ 751,540)	122	124	246	12
	E	4-28-54	30,158				
	H	4-22-54	254,335				
	H	2-21-58	467,047				
Naschitti:			(271,981)	179	0	179	5
	E	5-12-54	138,811				
	E	9- 1-59	133,170				
Nava (Newcomb):	E	5-12-54	121,495	104	56	160	8
Page:			(1,823,655)	47	23	70	12
	EH	1958	1,302,700				
	E	7-12-60	170,930				
	E	8-10-60	350,025				
Ramah:			(465,442)	166	60	226	12
	E	6-25-56	315,891				
	H	11- 2-59	149,551				
Sanders:	E	10-31-51	152,995	292	73	365	12
Shiprock:			(973,464)	370	200	570	9
	E	5- 5-54	129,904				
	E	5- 2-57	240,560				
	H	6- 1-59	603,000				
Thoreau:			(457,431	110	89	198	8
	E	12-17-54	304,162				
	E	11- 2-59	153,269				
Tohatchi:			(552,280)	370	0	370	8
	E	3-19-57	423,234				
	E	11- 2-59	129,046				
Tse Bonito:	E	3-19-57	251,541	89	5	94	6
Tuba City:			(2,030,948)	680	145	825	12
	E	5- 5-54	643,708				
	H	10- 6-58	733,350				
	E	11-12-58	653,890				

Continued

Location of School	Type of School (1)	Date Authorized	P.L. 815 Funds Allocated	Navajo Enrollment 1960-61		Total Navajo Enroll-ment	Grades Offered
				1-12 yr old	13 yrs & over		
Window Rock:			($3,151,974)	718	512	1230	12
	E	8-14-52	1,203,622				
	E	4-24-57	391,237				
	H	2-24-58	975,500				
	E	11- 3-58	581,615				
(Leupp):	E	12- 2-60	(94,050)	(Not included- not yet built)			
TOTAL			$20,212,118	5,494	1,976	7470	

(1) E = Elementary; H = Jr. or Sr. High School.

EDUCATION - NAVAJO SCHOOL ENROLLMENT - 1959-60 AND 1960-61 SCHOOL YEARS

Type and Location of School	Enrollment		Type and Location of School	Enrollment	
A. Reservation Boarding Schools			Reservation Boarding Schools		
Arizona	1959-60	1960-61	New Mexico	1959-60	1960-61
1. Chinle	289	751	1. Baca	48	56
2. Crystal	175	161	2. Canoncito	128	131
3. Denehotso	135	125	3. Cheechilgeatho	87	92
4. Greasewood	174	143	4. Coyote Canyon	90	91
5. Hunters Point	86	92	5. Crownpoint	451	500
6. Kaibeto	183	182	6. Lake Valley	58	55
7. Kayenta	497	459	7. Mariano Lake	117	129
8. Kinlichee	131	259	8. Nenahnezad	164	151
9. Klagetoh	82	72	9. Pinedale	30	32
10. Leupp	64	566	10. Pueblo Pintado	55	60
11. Low Mountain	147	200	11. Red Rock	87	103
12. Lukachukai	294	319	12. San Juan	226	205
13. Nazlini	188	135	13. Sanostee	193	194
14. Pine Springs	65	61	14. Shiprock	992	1,000
15. Pinon	309	314	15. Standing Rock	52	55
16. Rock Point	91	94	16. Teecnospos	82	81
17. Rough Rock	62	62	17. Thoreau	168	169
18. Round Rock	96	97	18. Toadlena	306	305
19. Seba Dalkai	129	129	19. Tohatchi	248	226
20. Shonto	56	58	20. Torreon	58	66
21. Steamboat	162	127	21. Twin Lakes	88	90
22. Tolani Lake	60	55	22. White Horse	52	53
23. Tuba City	578	663	23. Wingate Vocational	879	846
24. Wide Ruins	87	87			
			Utah		
			1. Aneth Boarding	65	71
			2. Navajo Mountain	21	29
TOTAL, RESERVATION BOARDING SCHOOLS				8,885	10,001
B. Reservation & Peripheral Dormitories			Reservation & Peripheral Dormitories		
Reservation Dormitories	1959-60	1960-61	Reservation Dormitories	1959-60	1960-61
1. Huerfano	108	100	5. Mexican Springs	60	64
2. Ignacio Boarding	183	169	6. Naschiti	101	103
3. Jicarilla Boarding	32	32	7. Ramah	170	203
4. Magdalena	130	134	TOTAL	784	803
Peripheral Dormitories	1959-60	1960-61	Peripheral Dormitories	1959-60	1960-61
1. Albuquerque	264	378	5. Holbrook	428	418
2. Aztec	140	129	6. Richfield	127	127
3. Flagstaff	314	313	7. Snowflake	126	122
4. Gallup	559	547	8. Winslow	324	297
				2,282	2,331
TOTAL, RESERVATION AND PERIPHERAL DORMITORIES				3,066	3,136

EDUCATION - NAVAJO SCHOOL ENROLLMENT - 1959-60 AND 1960-61 SCHOOL YEARS

C. Day Schools (Regular)	1959-60	1960-61	Day Schools (Regular)	1959-60	1960-61
1. Beclabito	53	47	8. Red Lake	95	95
2. Blue Gap	26	31	9. Salina Springs	26	32
3. Borrego Pass	102	123	10. Smoke Signal	29	28
4. Bread Springs	45	50	11. White Cone	88	95
5. Cove	-	109	12. Hopi Day School	1	-
6. Iyanbito	26	27	13. Theodore Roosevelt	1	-
7. Jones Ranch	54	55	TOTAL REGULAR DAY SCHOOLS	547	692

Hospital Schools:	1959-60	1960-61	Hospital Schools	1959-60	1960-61
1. Albuquerque Sanatorium	50	36	3. Winslow Hospital	35	110
2. Phoenix Indian San.	4	1	TOTAL HOSPITAL SCHOOLS	89	147

Trailer Day Schools	1959-60	1960-61	Trailer Day Schools:	1959-60	1960-61
1. Canyon del Muerto	25	25	9. Inscription House	47	49
2. Chilchinbeto	51	47	10. Jeddito	15	25
3. Coal Mine Mesa	12	25	11. Kimbeto	62	67
4. Cottonwood	75	83	12. Ojo Encino	52	52
5. Dilcon	29	22	13. Sand Springs	13	-
6. Dinnebito Dam	58	56	14. Tachee	22	29
7. Hatch's Store	22	20	15. Whippoorwill	18	18
8. Indian Wells	25	23	TOTAL TRAILER DAY SCHOOLS	526	541
TOTAL, ALL DAY SCHOOLS				1,162	1,380

D. Off-Reservation Boarding Schools[1]	1959-60	1960-61	Off-Reservation Boarding Schools	1959-60	1960-61
1. Albuquerque	669	558	7. Santa Fe	291	235
2. Chemawa	631	583	8. Sherman	768	744
3. Chilocco	481	479	9. Stewart	244	207
4. Haskell	41	53	10. Fort Sill	158	161
5. Intermountain	2,089	1,994	11. Riverside	215	245
6. Phoenix	548	207	12. Keams Canyon	299	292
TOTAL OFF-RESERVATION BOARDING SCHOOLS				6,434	5,758

E. Other	1959-60	1960-61	Other	1959-60	1960-61
1. Mission and other	1,228	1,379	4. Sanatoria[3]	22	
2. Public[2]	7,070	7,430	5. Colleges & Other Advanced	473	527
3. State Deaf & Blind	39				
TOTAL, OTHER				8,832	9,336
GRAND TOTAL, ALL SCHOOLS				28,379	29,611

[1] Of these schools, only Albuquerque, Santa Fe and Intermountain are in the Gallup Area.

[2] This figure excludes students housed in bordertown and reservation dormitories who attend public schools (See Item B. of this table).

[3] Enrolled in other than Public Health Service hospital schools.

SOURCE: Annual School Attendance Reports, 1959-60 and 1960-61
Annual School Census Reports, 1959-60 and 1960-61

November 9, 1961

DATES OF ESTABLISHMENT OF CERTAIN NAVAJO SCHOOLS[1]

	Location or Name	Date
1.	Fort Defiance:	
	Day School[2]	1869
	Boarding School[3]	1883
2.	Keams Canyon	1887
3.	Tohatchi:	
	Day School	1895
	Boarding School	1904
4.	Tuba City	1902
5.	Shiprock (San Juan)	1903
6.	Leupp	1909
7.	Chinle	1910
8.	Crownpoint (Pueblo Bonito)[4]	1909
9.	Fort Wingate	1925
10.	Toadlena	1913
11.	Albuquerque Indian School	1886
12.	Santa Fe Indian School	1890
13.	Phoenix Indian School	1891

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[1] Sources of information include: Navajo Agency Letterbooks; Indians in School, by James E. Officer; Here Come the Navajo, by Ruth Underhill; records in the files of Don May, Education Guidance Officer, Navajo Agency.

[2] See Indians in School, by James E. Officer, p. 9., "Complying with terms of the Treaty of 1868, the Indian Bureau sent a teacher, Miss Charity Gaston, to Fort Defiance in 1869. She held her first class in December of that year, the Agent having fitted out one of the agency rooms for her use."

[3] Closed on March 15, 1959.

[4] Closed at the end of the 1960-61 school year.

NUMBER OF NAVAJO HIGH SCHOOL GRADUATES AND COLLEGE STUDENTS FOR PERIOD 1935-1960, BY SCHOOL YEAR (1)

School Year	Number of High School Graduates	Number of College Students
1935-36	38	8
1936-37	40	9
1937-38	39	11
1938-39	38	10
1939-40	39	14
1940-41	40	16
1941-42	43	20
1942-43	44	21
1943-44	46	21
1944-45	47	29
1945-46	49	31
1946-47	50	35
1947-48	52	36
1948-49	55	38
1949-50	74	37
1950-51	99	71
1951-52	102	69
1952-53	100	77
1953-54	121	84
1954-55	130	140
1955-56	139	160
1956-57	180	294
1957-58	258	294
1958-59	332	305
1959-60	450	404
1960-61	503	401

(1) Numbers representing College Students include all Navajo High School Graduates attending College, Universities, Business Colleges, Nurses Training Schools or other institutions of advanced learning with the exception of Haskell Institute.

PROBABLE NUMBER OF NAVAJO HIGH SCHOOL GRADUATES BY YEAR FOR 10-YEAR PERIOD
1956-1966 (1)

School Year	Number of Expected High School Graduates
1956-57	185 (2)
1957-58	293 (3)
1958-59	352 (4)
1959-60	404
1960-61	476
1961-62	500
1962-63	1,600
1963-64	1,750
1964-65	1,800
1965-66	1,840

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(1) Prepared by Dr. Don May, Navajo Agency Branch of Education, on the basis of available information.

(2) It was estimated that 185 Navajo boys and girls are not (1955-56) in their Junior year in High School, and assumed that all of this group will graduate.

(3) The number of Navajos now estimated in the Sophomore year in High School was reduced by 10%, representing anticipated drop-out.

(4) The number of Navajos now estimated in the Freshman year was reduced by 15% representing drop-out or failure to graduate from High School

(5) The number of Navajo boys and girls expected to graduate in the period 1959-60 to 1965-66 was estimated on the basis of present enrollment in grades 2-8, inclusive in all types of schools, reduced by an arbitrary 20$ representing that proportion in each grade not expected to graduate for various reasons (e.g., failure to enter high school, marriage, drop-out before graduation, etc.).

NAVAJO SCHOOL ENROLLMENT
BY TYPE OF SCHOOL
1939, 1951-61

Type of School	1939	1951-1952	1952-1953	1953-1954	1954-1955	1955-1956	1956-1957	1957-1958	1958-1959	1959-1960	1960-1961
Federal Schools (enrollment 6-18 years)											
Boarding, Total	2,401	9,381	9,833	10,285	13,997	14,556	14,050	15,534	15,568	14,797	15,409
*(Reservation Bdg.)			(7,342)	(5,929)	(7,989)	(8,628)	(8,708)	(9,224)	(9,057)	(8,895)	(10,001)
*(Nonreservation Bdg.)			(2,317)	(3,307)	(3,790)	(3,807)	(3,693)	(3,712)	(3,667)	(3,394)	(5,758)
Day Schools, Total	2,262	742	698	1,157	2,348	1,623	1,605	1,393	1,450	1,206	1,472
*(Trailer Day Schools)			(117)	(179)	(1,119)	(944)	(981)	(711)	(661)	(526)	(541)
Public Schools	98	1,837	2,385	2,830	4,985	6,525	8,192	8,423	8,384	10,137	10,564
*(Peripheral Dormitories)					(1,030)	(1,322)	(1,460)	(1,480)	(1,755)	(2,284)	(3,134)
Mission and other Schools	359	1,175	1,190	1,229	1,411	1,459	1,628	1,553	1,457	1,267	1,379
(State Deaf and Blind)	(7)	(18)	(26)	(30)	(33)	(33)	(43)	(40)	(38)	(43)	-
Ages 6-18 enrolled, All Schools, TOTAL	5,120	13,135	14,106	15,501	22,741	24,163	25,475	26,903	26,859	27,407	28,824
Under 6 and over 18 in school, TOTAL	188	748	659	714	938	1,124	1,538	1,140	1,247	1,643	1,826
All ages in school, TOTAL	5,308	13,883	14,765	16,215	23,679	25,287	27,013	28,043	28,106	29,050	30,650

*These figures represent actual school enrollments as reflected in Tables 5, 6, 7, and 9 of the statistical pamphlet, and include students under 6 and over 18 years of age.

Source: Statistics Concerning Indian Education Table 1, "Annual School Census Report of Indian children, 1951-52 through 1960-61. Figures for 1939 are taken from the Annual School Census Reports, 1939.

Nov. 9, 1961

SPECIAL PROGRAM
NUMBER OF NAVAJO GRADUATES BY YEAR AND SCHOOL
1951 - 1961

School	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	Total
Albuquerque			43	7	19	31	29	12	32	20	40	233
Chemawa		2	28	33	27	21	50	64	111	95	88	519
Chilocco		31	54	44	30	50	42	57	42	36	64	450
Intermountain				24	188	307	195	226	188	166	159	1,453
Phoenix		52	34	18	13	27	33	35	47	40	23	322
Sherman	101	56	82	95	75	91	96	88	123	93	112	1,012
Stewart		48	48	20	21	41	48	32	34	27	27	346
Haskell						1	11					12
Total	101	189	289	241	373	569	504	514	577	477	513	4,347

Source: Report of Special Program Graduates; Statistics Concerning Indian Education; and Annual School Attendance Reports.

November 7, 1961

Health

When the Federal Government, assisted by civilian consultants, surveyed the health status of the Navajo after World War II, there was deep and increasing concern because the rate of illness and death among the Indian people was so much higher than among the rest of the Nation's population. At that time, the health program for the Navajo was hospital-centered with major emphasis on the treatment of tuberculosis. Resources were inadequate to apply proven public health measures, such as modern sanitation practices, to the majority of the people. The limited available health resources were not used to maximum advantage because of their inaccessibility to many people, and this, coupled with limited understanding of the preventable nature of some illnesses and incomplete knowledge of how to avoid preventable sickness, presented an unpromising health picture among the Navajo.

The diseases which particularly afflicted the Navajo people were tuberculosis, pneumonia, and diarrheal diseases. Most of these diseases exacted a heavy toll of Navajo lives and especially those of infants and small children. In 1952, the Navajo health level lagged almost two generations behind that of the general population.

The Initial Program: The special Long-Range Rehabilitation Act of 1950 sought to attack the health problem on four fronts. The $4,750,000 authorized by the Act was to be expended (1) to remodel, expand or replace hospital facilities at Shiprock, Tuba City, Winslow, and Chinle to increase the number of hospital beds from 286 general and 150 tuberculosis, to 390 general and 400 tuberculosis; (2) to establish a system of field stations (clinics), especially in conjunction with the larger reservation schools; (3) to develop itinerant medical and dental services; and (4) to provide an adequate public health program. Emphasis was placed on curative services in general, and on tuberculosis in particular.

By 1954, progress was measurable in several directions. A new 75-bed hospital had been completed at Tuba City and various improvements had been made or were in the planning stage at several other hospitals. In addition, to satisfy immediate pressing needs connected with the backlog of tuberculosis patients requiring hospitalization, contracts had been arranged with 10 State and private tuberculosis sanatoria in Arizona, California, Colorado, and New Mexico for use of about 500 beds.

An evaluation was then made of the Long-Range Plan. Reviewing the availability and use of community resources in

This new 200-bed PHS Indian Hospital, built at a cost of almost $4 million at Gallup, New Mexico, serves as a referral medical and surgical center for all the PHS Indian health facilities on the Navajo Reservation. It was dedicated on May 27, 1961.

relation to the needs for new facilities, it was determined that no new tuberculosis hospital be constructed, that the Fort Defiance Medical Center be modernized and converted to a general hospital with a small unit for tuberculosis patients, and that a new 200-bed medical center be constructed at a location where housing would be available and where it would be practicable to recruit and retain professional staff. It was also decided to move ahead with plans for construction of field health centers and stations for field health operations.

While the BIA Branch of Health was making this review, the United States Congress was reaching a decision which was to have a deep impact on the entire program of health services for the Indians, including implementation of the Long-Range Plan for the Navajos. In August 1954, the Congress passed Public Law 568 (83rd Congress) which was to transfer full responsibility for the Indian health program from the Bureau of Indian Affairs in the Department of the Interior, to the Public Health Service in the Department of Health, Education, and Welfare. The transfer was to be effective July 1, 1955.

To administer the Indian health program, the Public Health Service organized the Division of Indian Health as part of its Bureau of Medical Services. The health program for the Navajos is administered through the Division's Albuquerque (New Mexico) Area Office and through the Window Rock (Arizona) Field Office.

New Resources: Since the transfer, marked changes have taken place on the Navajo, far exceeding the level of the program authorized under the Long-Range Plan. Setting for itself the goal of elevating the health status of the Navajo to a point which compares favorably with that of the Nation as a whole, the Division of Indian Health embarked upon an intensified integrated health program encompassing preventive, curative, and rehabilitative care with attention to the whole disease spectrum and to the whole cycle of life from prenatal to geriatric care. Such a program required additional facilities, additional personnel, the creation of new activities for this broader program, the establishment of new categories of health workers for newly-created functions.

Construction of New Facilities: The first hospital constructed by the Public Health Service, Division of Indian Health, was the 75-bed facility replacing the inadequate hospital at Shiprock, New Mexico. It was opened May 1960.

A year later, May 1961, a 200-bed medical center base-hospital was completed at Gallup, New Mexico. The largest PHS Indian hospital serving the Navajo, this major facility — the hub of the Navajo health program — implemented a major recommendation of the Long-Range program. Serving as a referral center for the five Navajo field general hospitals and other health facilities, it provides for those Navajo patients with complicated conditions requiring special diagnostic and therapeutic services. Gallup Hospital also directly serves Navajos in the vicinity of Gallup.

Care for tuberculosis patients is available mainly at the PHS Indian tuberculosis hospital at Albuquerque, New Mexico, and at several community and State hospitals under contract. Except for a small unit at Fort Defiance, Arizona, no PHS facility for tuberculosis care is operated on the Navajo Reservation.

To accelerate and intensify the preventive health program for the Navajo, health facilities have been constructed through which curative and preventive services are provided for ambulatory patients. In full operation since 1959 have been newly-constructed health centers at Chinle and Kayenta, Arizona, and at Tohatchi, New Mexico; as well as new health stations at Pinon, White Cone, Round Rock and Cornfields, Arizona, and at Pueblo Pintado, New Mexico.

The following table lists the major Public Health Service facilities (with number of beds of each hospital) operated on the Navajo Reservation:

Hospitals	*Beds*
Crownpoint, N.M.	65
Fort Defiance, Arizona	159
Gallup, N. M,	200
Shiprock, N. M.	75
Tuba City, Arizona	75
Winslow, Arizona	53

Health Centers

Chinle, Arizona
Kayenta, Arizona
Tohatchi, New Mexico

In order to recruit and retain high caliber professional people for the health teams assembled by the Division of Indian Health, it has been necessary to construct housing reasonably near their work. Permanent quarters constructed or authorized, 1957 through 1961, total 167 units at a construction cost of over $4 million for the following locations: in Arizona — 13 at Kayenta, 11 at Chinle, 29 at Fort Defiance, 13 at Tuba City; in New Mexico —

14 at Crownpoint, 76 at Shiprock, 2 at Tohatchi, 9 at Gallup.

Table 1 provides a detailed summary and construction costs on all the Public Health Service facilities presently serving the Navajo and on housing for health staff.

Mobilizing Health Teams: With its completely integrated approach to health problems on the Navajo, the Division of Indian Health utilizes not only personnel usually associated with the practice of medicine, but also specialists to meet the unique needs of the program as well as a host of auxiliary workers in supportive positions. Among the medical and surgical services required are those of physicians, nurses (clinical and public health), dentists, pharmacists, X-ray and laboratory technicians, health educators, medical social workers, medical record librarians, other hospital and field health specialists. Engineers and architects are also necessary to the program, as are sanitarian aides, practical nurses and dental assistants. All these varied skills go into the program of direct services to the Navajo. Additional services are provided to the Navajo people through contracts with community resources — community and State hospitals, private practitioners (physicians, dentists, etc.) and group clinics.

In 1950, health staff serving the Navajo numbered 300, including only 16 physicians. By 1955 the number had increased to over 400 (including 23 physicians) largely due to opening of the expanded 75-bed Tuba City Indian Hospital in 1954. In 1960 more than 670 health workers — including 34 physicians — were working directly with the Navajos. (This figure does not include about 200 people staffing the Gallup Indian Hospital which opened in April 1961.) Table 2 gives a complete picture of the PHS professional staff on the Navajo. Hospital professional nurses now number 94, an increase of almost 50 percent since 1955, while there are presently 28 public health nurses. The dental and sanitation staffs on the Navajo have about doubled in the same period. Some of the specialists now in the program were not employed at all before the transfer or in small numbers — as medical social workers, nutritionists, pharmacists and health education workers. With expanded staff came opportunities to embark on new activities and extend needed services — such as maternal and child health, nutrition, sanitation, health education.

The Public Health Service encourages its health employees to undertake training and advanced instruction and has instituted continuing in-service and out-of-service training. Many of the people it employs on the Navajo have access to this training. Qualified Indian women may receive practical nurse training at the PHS Indian School of Practical Nursing in Albuquerque and,

PUBLIC HEALTH SERVICE PROGRAM STAFF FOR THE NAVAJO [a/]

Type of Specialist	Years				
	1954	1955	1958	1959	1960
Medical Officers	17	23	37	39	43
Dental Officers	6	8	12	12	15
Professional Nurses, incl. public health	80	88	104	107	122 b/
Trained Practical Nurses	c/	45	59	68	80
Nursing Assistants	c/	70	64	64	88
Dietitians and Nutritionists	1	1	2	2	3
Medical Social Workers	0	0	1	3	3
Public Health Educators	0	0	2	2	2
Community Workers (Health) and Health Education Aides	0	0	15	11	11
Sanitarians	6	9	14	13	21
Pharmacists	0	0	3	5	8
Medical Laboratory and X-Ray Technicians	c/	19	18	20	25
All Other	190	173	200	198	260
Total	300	436	531	544	672

a/ Excludes Gallup PHS Indian Hospital positions. Hospital opened in April 1961, and, in May, had a staff of about 200 employees.
b/ In 1960, 28 were public health nurses.
c/ Not identifiable - included in All Other.

upon graduation, are assigned to Indian health facilities. Through its health education staff in the Albuquerque Area, the Public Health Service conducts an orientation and training course for Indians in community health program work (a phase of health education). Organized courses are also conducted for the training of Indian sanitarian aides. At the Intermountain Bureau of Indian Affairs off-reservation boarding school, the Division of Indian Health dental staff provides training for Indian youth to become dental assistants. Most of the young Navajos who complete these courses are assigned to work with their people in Navajo communities.

Tribal Participation: The Tribal Council and its Health Committee contribute to improving Navajo health through active participation in Public Health Service programs for control of preventable disease — especially tuberculosis. They strongly support and contribute to the environmental sanitation program — the program to provide adequate, safe water supplies and sanitary disposal of wastes. They undertake special health services, such as the purchase of eye-glasses and other prosthetic aids, and have given assistance to the Many Farms project, especially in its initial stages. A member of the Tribal Council, and chairman of its Health Committee, serves as a member of the Surgeon General's Advisory Committee on Indian Health. And many young Navajo men and women are taking Public Health Service training to work among their own people in community health programs.

Trends; Utilization of Health Services and Facilities: Increasing numbers of Navajos are receiving preventive and curative services in Public Health Service Indian and contract hospitals, in field health facilities, and in their homes. The increase is due to growing understanding of the value of health services and the availability of more and better health resources.

Over 10,300 general patients were admitted to Public Health Service Indian hospitals on the reservation in fiscal year 1960, compared to 6,458 in Fiscal Year 1955. In the same period, the daily general inpatient load in these hospitals increased from 200 to nearly 300. While hospitalization for general conditions has increased, the tuberculosis census has steadily decreased with effective control and therapeutic measures.

Navajo babies born in Indian hospitals on the Navajo Reservation numbered 1,900 in Fiscal Year 1960, compared with about 1300 in Fiscal Year 1955. This 46 percent increase in the use of Indian hospitals for deliveries plays an essential part in meeting the problems of infant morbidity and mortality among the Navajo.

The use of hospital outpatient departments for medical services, therapeutic and preventive, has more than doubled since 1955, reaching a high of 138,210 visits in Fiscal Year 1960.

Field medical services have also been steadily increasing since 1955. As facilities and specialized staffs became available, health services were brought closer and closer to the people through health centers, field health stations, the school health program, and visits to the home. Many of these services are preventive, such as maternal and child health clinics, immunization services, special school clinics. One of the functions of the field medical officer is to coordinate the activities of the public health nurses, sanitarians, sanitary engineers, community workers and various categories of ancillary workers into a unified efficient public health program. By providing preventive services at the home level, the program decreases the number of advanced infectious diseases seen at the hospital.

Case finding is an important field activity. Beginning in 1957, for example, trachoma surveys were made under the direction of the Division of Health's ophthalmology consultant. It was found that this disease, thought to have disappeared, was actually prevalent. Continuing efforts are also made to uncover new cases of tuberculosis so that medical care may be instituted as needed — hospitalization or chemotherapy for the ambulatory patient. The Area's tuberculosis program is under the direction of a tuberculosis control medical officer.

In Fiscal Year 1960, nearly 60,000 visits were reported at the four health centers — Chinle, Gallup, Kayenta, and Tohatchi — and about 40,000 visits to physicians at the two boarding school health centers at Intermountain School, Brigham City, Utah and at Albuquerque. (Shiprock boarding school is served by the PHS Indian Hospital at that location.)

With the beginning of school in the fall, the field medical officer and the district public health nurse work as a school health team. The physician examines the beginning students and the public health nurse completes immunizations and applies a tuberculin test. Children who need corrective treatment are referred either to the nearest PHS Indian hospital or to the Crippled Children's Program. Throughout the year, the team visits the schools as needed to give medical care. Outbreaks of influenza, measles, chickenpox, and mumps require special attention during the winter months.

In addition, tens of thousands of visits were recorded by physicians and public health nurses at numerous locations on the Navajo where scheduled clinics were held, and in the homes. In contrast to the early 1950's, a much larger volume of all types of service, including dental care, was made available to hundreds of Navajo communities in 1960.

Table 3 in the appendix provides a summary of inpatient and outpatient services for Fiscal Year 1960 at each Navajo health facility, and Table 4 gives a picture of the utilization of the general hospitals on the Navajo for 5 different years.

Health services provided through the Division of Indian Health facilities have been supplemented substantially by services obtained through contractual arrangements with non-Federal general hospitals, tuberculosis sanatoria, mental hospitals, and physicians, dentists, and other private practitioners.

The largest contracts were established with 10 tuberculosis sanatoria in Arizona, Colorado, California and New Mexico beginning in 1953, when the need for tuberculosis beds was most acute. More than 500 beds were occupied in the peak years 1955 and 1956. In the last five years the tuberculosis contract hospital census has been dropping steadily, as a result of the dramatic

(Lower) A Navajo mother brings her child to the well-baby clinic at PHS Indian Hospital, Fort Defiance, Arizona, for a regular check-up.

(Lower) Navajo mothers and babies are of first concern in the PHS Indian health program. Prenatal and postnatal clinics are held for mothers, and visits to the well-baby clinic serve as a check on the little ones. Here a PHS visiting nurse on a home visit to the hogan looks over a youngster.

drop in tuberculosis morbidity, the success of the control program, and the application of new treatment methods. In 1960 the tuberculosis census averaged 150 and only about 120 tuberculous patients on the average were hospitalized in 5 contract hospitals.

The tuberculosis sanatoria now under contract are: Oshrin Hospital, Tucson, Arizona; Cragmore Sanatorium, Colorado Springs, Colorado; Mesa Vista Sanatorium, Boulder, Colorado; Presbyterian Hospital, Albuquerque, New Mexico; Ft. Stanton Sanatorium, Ft. Stanton, New Mexico.

The largest contract for general hospital care has been in effect with the Bernalillo-County Indian Hospital in Albuquerque, which was completed in 1954. In the 5-year period 1955-1960, some 80 to 90 beds have been occupied by Indian beneficiaries, about one-half of them Navajo. While the Public Health Service was completing the construction of the facilities of Shiprock and Gallup during 1960, the general hospital contract load increased substantially, compared with prior years. In 1961 this contract patient load gradually began declining.

In 1960 there were 55 contracts in effect in the Albuquerque Area covering all types of contractual arrangements for hospitalization as well as specialized medical and surgical services, crippled children's services including rehabilitation, and medical and dental care provided to students attending off-reservation boarding schools.

Utilization of hospitals under contract for the years 1955-1960 is shown in Table 4A in the appendix.

Health Advances: The total impact of increased use made of Indian health facilities is not fully shown by the available statistics due to under-registration of births and deaths — particularly in past years, and incomplete reporting of illness. The Public Health Service has made considerable progress toward assuring more adequate reporting and, as a result, today knows considerably more about the Navajos' health picture than it did 5 years ago. It knows, for example, that the scourge of the Navajos, tuberculosis, is steadily being brought under control. Deaths from this highly infectious disease have been dropping steadily — the rate has been reduced to almost 40 per 100,000 population currently, compared with a rate of more than 150 deaths per 100,000 population in 1952, a reduction in rate of nearly 75 percent. Whereas at that time tuberculosis ranked first as a cause of Navajo deaths, it now ranks sixth. First place currently is occupied by accidents with pneumonia and influenza, diseases of infancy, malignant neoplasma, and heart disease following. Tuberculosis incidence in the last 8 years has dropped to an average rate of just over 460 per 100,000 population, a decrease in the rate of nearly 60 percent compared with 1952 (see Table 7 in appendix). An active tuberculosis case finding program including the establishment of a tuberculosis register has enabled bringing hospitalization or chemotherapy treatment in clinics or the home to persons known to be actively afflicted with this disease. Medical treatment of tuberculosis has vastly changed and improved in recent years. The length of stay in hospitals has shortened considerably, from well over a year for each hospital admission to a low average stay of 4 months and a high of 8 months.

As the fight against tuberculosis has progressed and as other diseases have moved ahead of that illness as leading menaces to good health among the Navajo, the highly specialized diagnostic and curative resources required to meet the new challenge have had to be developed. This has been accomplished, in part, through redirecting existing resources and, in part, through establishing new resources.

While the Navajo death rate from all causes is similar to that of the general population, a wide difference in average age results in considerable difference in death rates by particular causes. Over half of the Navajos are under 20 years of age — a picture quite different from the general population. Thus, the degenerative diseases associated with the older age groups, which account for high death rates in the general population, are not reflected with such severity among the young Navajo population. Instead, the Indians are particularly afflicted by infectious diseases which strike heavily among infants and young children. Diseases such as influenza and pneumonia and gastroenteric ailments contribute markedly to a Navajo infant death rate of almost 68 per 1,000 live births (average for the three years 1957-1959), or about 2½ times that of the general population (see Table 10). For 1959, the Navajo infant mortality rate was about 60, a reduction of almost half the 1954 rate of 110. Nevertheless, infant mortality remains a major problem among the Navajo, and the Public Health Service is continuing to direct its efforts toward further improvement.

Many infant deaths are associated with poor environmental sanitation. In this connection, the Division of Indian Health, through authority granted by Public Law 121, 86th Congress, is acting to improve water supplies and waste disposal facilities in Navajo homes and communities with full Navajo participation and contributions of labor and funds. (See section on Environmental Sanitation.) Also, prenatal and well-baby services, including immunizations, are provided throughout the reservation so as to reduce the likelihood of small children becoming ill. The growing need for such services is emphasized by the high rate of Navajo births — approximately 47 per 1,000 population.

The backlog of some illness, such as dental ailments and certain conditions associated with poor nutrition, remains high and is being subjected to considerable PHS effort.

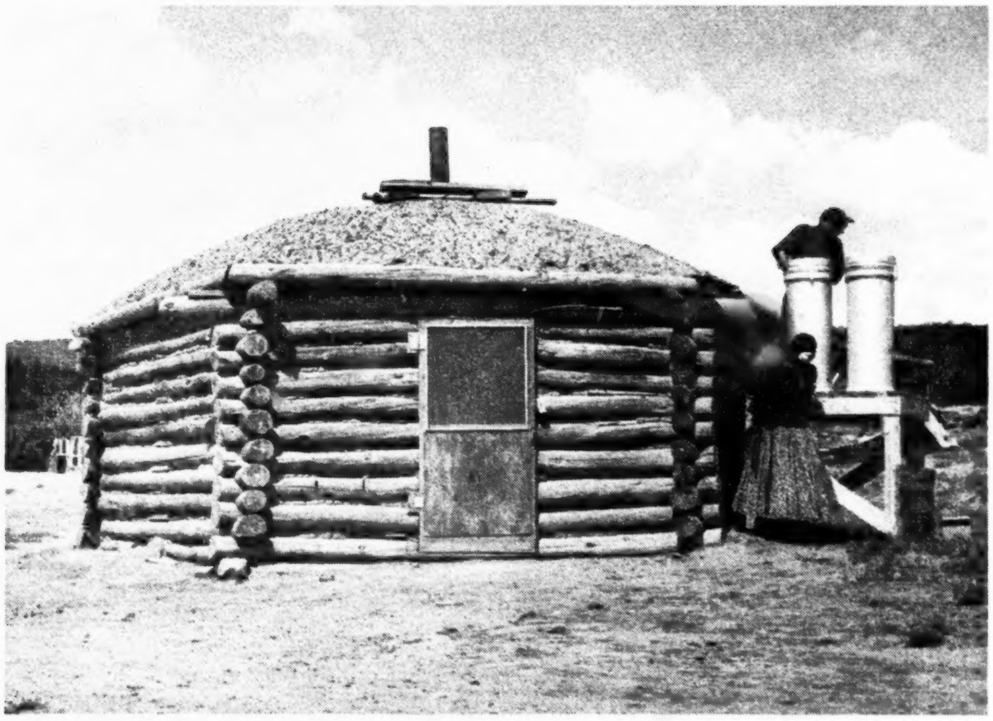
Environmental Sanitation: Inadequate home sanitation is considered one of the major contributing factors which has resulted in excessive illnesses and premature deaths of the Navajo people. A safe water supply in adequate quantities for good home sanitation and personal hygiene uses; sanitary disposal of excreta and household wastes; proper food preparation and storage; and larger sized homes constitute the greatest sanitation needs on the reservation. The sanitation activity of the health program has encouraged a "self-help" approach by tribal authorities and individual Indians in correction of these conditions.

Early efforts to improve environmental sanitation on the Navajo Reservation were initiated by the assignment of a sanitarian in 1948 and a second sanitarian in 1949. Due to inadequate funds and staff, these activities were limited to infrequent inspections and occasional assistance in the correction of glaring sanitation deficiencies. Activities were increased in 1952 by the employment of three sanitation aides. Substantial impetus was given to the reservation sanitation activities following the transfer of the Indian health program to the Public Health Service in 1955. By 1961 the PHS sanitation staff on the reservation included 6 sanitary engineers, 4 professional sanitarians and 14 Indian sanitarian aides.

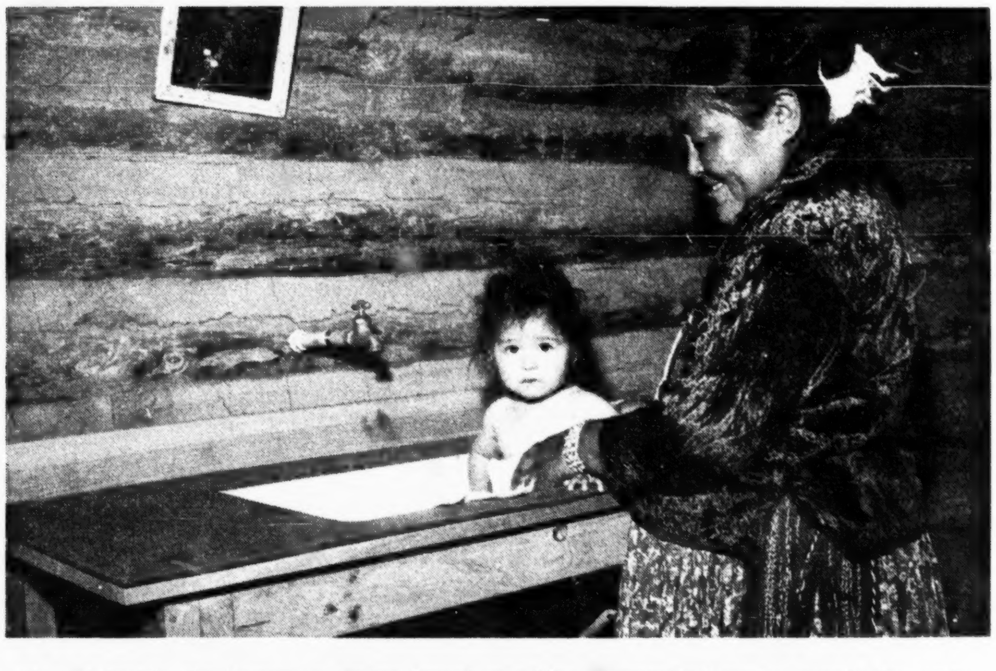
During the past five years significant improvements in sanitation have been noted. The Public Health Service has furnished technical guidance and direction in the development and execution of each project. Under the tribal shallow well and spring development program, approximately 650 communal shallow well and spring water supplies were constructed during the period from 1959 - 1961, with a total expenditure of more than $1,525,000 in tribal funds and more than $200,000 in Public Health Service technical assistance. This work is summarized in the table below:

Shallow Well and Spring Development Program
Tribal - PHS Projects
Number of Units Completed
1959-1961

1959	1960	1961
40	210	400 (estimated)



(Upper) Public Law 86-121 authorizes the U. S. Public Health Service to assist Indians in cooperative projects to improve sanitation facilities. Here water storage containers are being installed which will provide a safe water supply for a Navajo hogan.



(Upper) Inside the hogan, a water faucet provides a protected water supply for various domestic uses. The sink units with subsurface waste disposal, is part of the project.

WINDOW ROCK FIELD OFFICE

Environmental Sanitation Program

Five-year Period
1955 - 1960

	1955	1960
Annual Operating Budget	$48,500	$161,447
Staff	9 positions	23 positions

Principal Activities

1. Water Supply	Collection of Water samples. Inspection of water supplies. Chlorination of questionable supplies.	Technical supervision of 200 spring and shallow well developments under Tribal Public Works Program. Water samples collected at major schools and agencies.
2. Sewage Disposal	Inspection of sewage disposal facilities. Limited construction of privies.	Incidental to comprehensive surveys of major facilities.
3. Refuse Disposal	Inspection of refuse disposal facilities. Limited construction of new refuse disposal facilities.	Incidental to comprehensive survey of major facilities.
4. Vector Control	Extensive spraying of homes, government buildings, breeding places.	Home spraying on request only.
5. Other	Principally inspectional and survey.	Environmental sanitation: Surveys of reservation schools; inspection of trading posts.

In addition, the Tribe has continued the development of deep wells under the range well development program. In many instances, these serve as sources for domestic water supplies. The Public Health Service has assisted the Tribe with this program by providing technical and engineering guidance and equipment in the construction and protection of these water sources.

Other improvements as a result of joint Tribal-Public Health Service activities include the development, adoption and enforcement of sanitation codes and regulations for trading posts and restaurants; construction of sanitary privies; vaccination of dogs for rabies control; and design and construction of low-cost housing. Demonstration projects to illustrate principles of fly and insect control were carried out and demonstration home water storage units were installed in many chapter houses throughout the reservation.

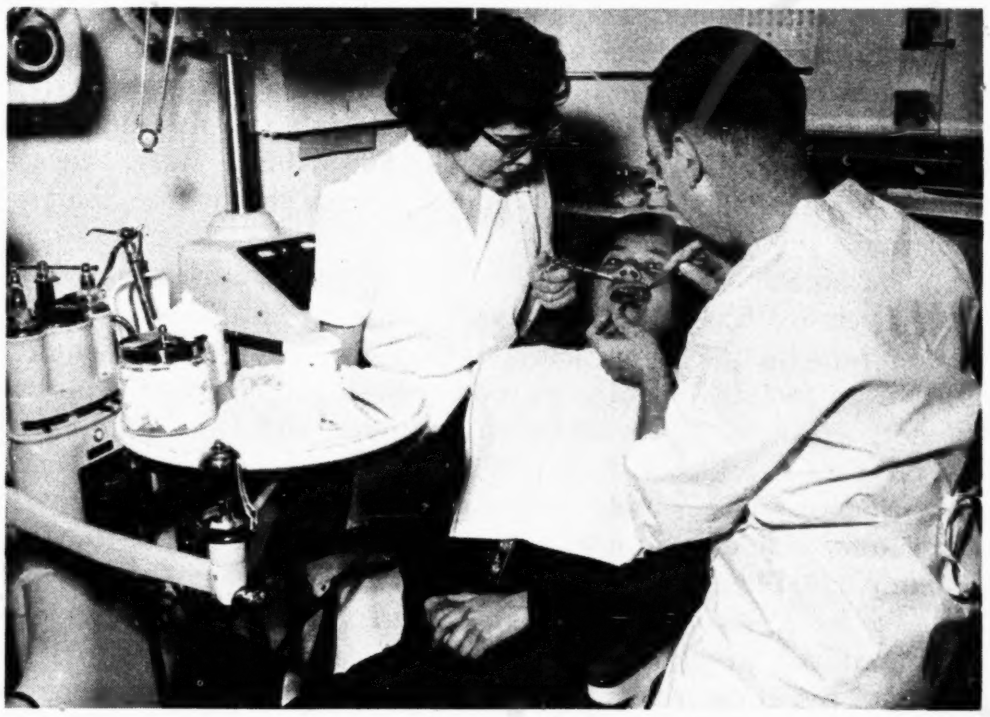
An additional impetus to environmental sanitation activities was given by the enactment of Public Law 86-121. This legislation permits the joint planning and construction of adequate sanitation facilities for Indian homes and communities. Approximately $550,000 of Federally-appropriated and tribal funds will be used on 8 projects during 1961. These projects include construction of water supply and waste disposal facilities for seven communities and provision of water storage facilities at approximately 3,000 homes on the reservation.

Public Health Nursing: The Public Health Nurse provides a generalized program of field nursing services adapted to the needs of the Navajo people. Direct patient care, both therapeutic and preventive, is provided through field clinics, nursing conferences, school and home visits. The aim of the Public Health Nursing Program is to prevent disease through the promotion of good health practices by the people. Emphasis is placed on maternal and child care, immunization against preventable diseases, follow-up of tuberculosis patients and contacts, and care and rehabilitation of crippled children.

Although each year shows progress in these fields there is still much work to be done. Achievement of goals is dependent primarily on several main factors: (1) sufficient nurses, (2) education of the people, (3) transportation facilities for the people, (4) water development.

The services of the public health nurses are augmented by the employment of trained practical nurses and a few health aides in some areas.

Dental Health Services: In recognition of oral health needs, especially of Navajo school children, the Public Health Service has expanded the activities of the dental program through increasing staff to its current number of 17 dental officers and an equal number of auxiliary personnel. This number includes dental staff assigned to Intermountain Indian School. In addition, contracts have been negotiated with private dentists to provide care for school children at Bureau of Indian Affairs bordertown dormitories and to Navajo patients in off-reservation contract sanatoriums.



Dental care at an Indian health clinic.

Keeping abreast of rapidly changing developments and improvements in dental equipment and technical procedures, the Public Health Service has not only enlarged many of the dental clinics but also has acquired the latest ultra high speed dental operatory equipment and other recently developed equipment. This has made procedures often "feared" by patients, more readily accepted. Consistent with present-day concern over the danger and hazards of radiation, all dental X-ray machines in the PHS clinics have been inspected, calibrated, and provided with recommended filters to protect patients.

A special research project on a hemorrhagic gingival condition was conducted at Intermountain Indian School, Brigham City, Utah, by the PHS dental officers assigned to the station. Technological assistance was received on blood chemistry from the Department of Nutrition, Utah State University, Logan, Utah. Preliminary findings indicated a possibility of vitamin deficiency status contributing to the prevalence of the condition among Navajo children.

The dental assistant training program at Intermountain Indian School was greatly improved by the expansion of the facility. This provided additional clinical space as well as areas for demonstrations and classrooms. Necessary equipment was added to improve the teaching methods and learning opportunities for the students. All the graduating members of the last two classes were placed within the Division of Indian Health. This program has permitted the assignment of one trained auxiliary personnel to each dental officer, affording a much more effective and efficient program. In many areas, the school children have been brought up to a maintenance level so that their oral health needs do not exceed those occurring the previous year.

WINDOW ROCK FIELD OFFICE

Fiscal Years 1956 and 1960

	No. of Patients Treated	No. of Patient Visits	No. of Service Units Provided
1956	17,526	25,494	33,750
1960	18,642	29,375*	44,026

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*Represents visits at hospitals and health centers.

Pharmacy Services: Steady progress has been made in the development of pharmacy services on the Navajo. Pharmacies have been established at the Gallup, Fort Defiance, Tuba City, Shiprock, Crownpoint and Winslow Hospitals, and at the Chinle Health Center. These pharmacies are well equipped and pharmacy officers have been employed to operate them. Each hospital in the Window Rock Field Office now has a hospital pharmacy under the direct supervision of a pharmacy officer.

Pharmacy officers are responsible for supplying medications for inpatients and outpatients, bulk compounding, prepackaging for facilities without pharmacists, proper labeling, and routine inspections of drug stocks. They serve as consultants for the dissemination of drug therapy information to the medical, dental, and nursing staffs.

A system of supplying pharmaceutical services to field health centers and other medical facilities lacking a pharmacy officer has been put into effect. All health facilities on the Reservation now are receiving pharmaceutical services either directly from a pharmacist on the premises or indirectly from the nearest station with a pharmacist. Indirect service includes providing all the necessary drugs in correct dosage forms and package sizes and periodic visits by a pharmacy officer to inspect storage facilities, quantities and potency of drugs, and the adequacy of record keeping on certain security drugs such as narcotics and hypnotics. These services are essential to the operation of a preventive and curative medical care program at the various hospitals and field health facilities.

A Pharmacy and Therapeutics Committee, composed of medical and health specialists on the staff at Fort Defiance and the Medical Officer in Charge of each medical facility in the Area, guides pharmacy personnel in their evaluation, selection, control, and concern with utilization of drugs. The Committee has completed the work on an Area Drug Formulary and this Formulary is now functioning throughout the entire Albuquerque Area. This is a standardized list of drugs considered by the Committee to be the best drugs available for the diagnosis and treatment of various diseases.

Medical Records: Although adequate and accurate medical records are one of the most important tools in evaluating patient care in the hospital, an organized medical record program with trained medical record personnel was not developed in Indian hospitals prior to 1956, the first year following the transfer. Since that time, there has been a great demand for technical supervision and training of personnel in the various Public Health Service facilities. This has been brought about by the need for accurate and complete records on the increasing number of patients treated in the hospitals and clinics; for accurate statistical reporting; and for the performance of many medical studies developing from the wealth of information becoming available.

Progress has been laudable so far, but there is still much to be accomplished in order to establish an ongoing program of medical records.

The Division of Indian Health now employs three Registered Medical Record Librarians on the Navajo Reservation, one as Medical Records Consultant on the staff of the Window Rock Field Office, and the other two at PHS Indian Hospital, Fort Defiance, Arizona, and PHS Indian Hospital, Shiprock, New Mexico, respectively. A Medical Record Librarian has been appointed for the new Gallup Hospital.

Nutrition and Dietetics: The Nutrition and Dietetics Branch of the Division of Indian Health was established in 1956 (about a year after the transfer of health services to the USPHS) to develop the nutritional aspects, both preventive and therapeutic, of the total Indian health program. The present staff providing nutrition and dietetic services to the Navajo Reservation consists of six persons: a nutrition and dietetics officer at Window Rock Field Office, a consultant dietitian from the Area Office in Albuquerque, a dietitian at Shiprock Hospital, and three dietitians at Fort Defiance Hospital. Several more nutritionists and dietitians are needed. Navajos away from the reservation receive nutrition services from the public health nutritionists in other Area or Field Offices of the Division of Indian Health.

The public health nutritionist at Window Rock works with the staff of the Indian Health Field Office, the hospitals, field health centers, and health stations on the nutritional aspects of preventing and treating disease. She participates in the planning and interpretation of research projects concerned with nutrition, and helps to develop educational materials on nutrition geared to the needs and resources of the Navajos. She works closely with the Tribal Committee and other agencies whose activities involve food and nutrition.

The Area consultant dietitian provides assistance with the general organization and management of the dietary departments of the hospitals and gives both direct and consultative services to them. She works cooperatively with the nutrition and dietetics officer and with other branches of DIH to make the hospital food service and patient education an integral part of the total health program.

Nutrition problems of the Navajos have been mentioned for several decades in reports covering health needs on the reservation. Research to determine the kinds and extent of the nutritional problems is now anticipated. One small study was completed at Intermountain Indian School during the school year 1959-60. Results of research studies will provide the basis for the future development of nutrition and dietetic services.

Medical Social Service: Medical Social Service as an integral part of the Division of Indian Health program assists the patient in utilizing medical care available to him. Casework service evaluates the social, economic, environmental and emotional problems which relate to the medical problems of the patient.

The first medical social worker was placed at the Fort Defiance Hospital in September 1954. Due to lack of necessary interpreter help and clerical help, the worker resigned and the position was not filled again until June 1958.

In September 1955, after the medical care of the Indians was transferred to Public Health Service, a medical social consultant was placed at Window Rock to establish a medical social service program and recruit for other medical social workers. At present there are six medical social workers on the Navajo

Reservation: one each at hospitals at Fort Defiance, Shiprock, and Tuba City, two at Gallup Hospital and one at the Window Rock Field Office. One of the Medical Social Workers at Gallup is a Navajo College graduate who earned a Master's degree at the Graduate School of Social Work, University of Denver in June 1961 and returned to work on the Reservation.

The social service to Navajo patients has increased from 83 in one month in 1955 to an average of 350 per month for the past year, or approximately 4,000 families during the year. Services were provided to patients in crippled children's service, pediatrics, tuberculosis, blind, prenatal, general medical and mental health. Individuals were helped with emotional adjustments, family problems, rehabilitation of the physically handicapped, and plans for institutional care.

The need for a home on the Reservation to care for the chronically disabled has been presented to Tribal officials, through statistics and types of cases needing this service. The Tribe has acknowledged this problem and the responsibility which it should take, but a plan has not been formalized. The need continues to grow greater each day. There are also many handicapped children who are unable to get training because they cannot attend regular schools.

Health Education Services: It has long been recognized that health education is essential to meeting the health problems of the Navajo. Health education activities have always been carried out by all categories of health and education personnel, but in the early 1950's officials agreed that there was real need for a concentrated educational effort. Headquarters developed a program structure, including proposed staff and mechanism for operation in health education. Included was a statement outlining the health education needs, the variations in the groups with which such work would be carried out, and the major areas of health educational work.

The next step was to find trained personnel to carry out the proposed program on all Indian reservations. By then, 1954, a health education staff was not available, for demand for trained Public Health Educators far exceeded the supply. It was obvious that if health education services were to be provided, the Bureau of Indian Affairs would have to "grow their own." Three categories of health education personnel were needed on the Navajo Reservation; Public Health Educators, Community Workers (Health), and bi-lingual Community Health Education Aides.

Planning was begun with the University of California School of Public Health to provide services in health education on the Navajo Reservation, beginning in July 1955, by the assignment of faculty-level Public Health Educators to work within the administrative framework of the Indian health program. Continuity of planning was undisturbed when Congress transferred the Indian health program to the Division of Indian Health, Public Health Service.

The objectives of the health education program on the Navajo, as developed were: (1) to encourage Indian people to use preventive health measures which will ultimately lessen the need for treatment and hospitalization; (2) to improve the educational aspects of the work carried on by the public health staff with the Indians; (3) to increase understanding of the staff members of other agencies rendering services to the Indians as to ways health education can be made a part of their regular work; (4) to develop continuous evaluation procedures so that educational efforts could sharply focus on health problems; (5) to develop new ways of recruiting and selecting personnel for health education; (6) to develop effective methods of training health education personnel, and in the interests of the University, (7) to develop a center for field training of graduate students in health education.

By late 1957 the long-range health education program for the Navajo had been initiated and nine Community Workers (Health) and four Community Health Education Aides had been recruited, trained on the job and were working on the Navajo Reservation. Much progress had been made in working with the Navajo Tribal Chapters, families, traders, missionaries, health staff, and other groups in a variety of educational ways towards the improvement of the health and living conditions of the Navajo people.

In July 1959 the University of California, at its request, moved toward concentration of health education activities in the Tuba City Service Area. The program began in the hospital setting; the second focal point will be on opinion leaders; and the third on the Navajo general community. Concurrently with the development of health education, research is being conducted to increase understanding of health behavior among the Navajo, and to illuminate factors that facilitate or block their health education. The University continues to orient health education personnel. To carry out this program, a Public Health Educator and Research Associate available under the contract have been located at Tuba City.

As the University of California contract services became concentrated at Tuba City, the Division of Indian Health employed a Public Health Educator to carry on the total Reservation-wide health education program.

By August 1960, a second Public Health Educator, who was recruited and trained on the job by the Division of Indian Health as a Community Worker (Health) and later completed graduate work at the University of North Carolina School of Public Health, was spearheading the health education phases of water development and usage in the Chinle, Ganado-Cornfields, and Crownpoint service units. Six Community Workers (Health) were serving the Kayenta, Tuba City, Winslow, Tohatchi, and Shiprock services units. Four Community Health Education Aides were working at the Aneth, Chilchinbeto, Donnehotso and Shiprock areas, and one Health Education Aide was working in the Tuba City Hospital. The jobs of the three categories of health education personnel are distinctively different, but each, as a team member, works toward the one objective of improving the health of the Navajo people.

Through the joint efforts of the Navajo Tribal Health Committee and the Division of Indian Health, health teaching materials, such as tapes, filmstrips, flipcharts, posters and brochures on such subjects as diarrhea control, fly control, immunizations, dry skim milk and trachoma, have been produced for use with the Navajo people, and a health education audio-visual library of some 65 films has been established. Through the increasing interest of health and Tribal personnel in applicable health education methods and materials, outstanding group and individual instruction is being carried on throughout the Reservation on such health topics as diarrhea and tuberculosis control; prenatal; postnatal and infant care; dental health; nutrition education; and water usage and personal hygiene.

Definite progress has been made in the health education services to the Navajo people during the past ten years. But, until every Navajo understands and uses modern medicine and public health services, health education activities must expand and continue to move forward with the economic and social progress of the Navajo.

Statistical: The tables provided herewith as an appendix to the Health Section were prepared by the Program Analysis in Albuquerque, New Mexico, with the collaboration of the Headquarters Program Analysis and Special Studies Branch of the Branch of the Public Health Service Indian Health Area Office Division of Indian Health. Included are summaries of health facilities and staff serving the Navajo; three tables showing health workload statistics through fiscal year 1960 — admissions, average daily patient census, births, and outpatient visits to hospitals and health centers of the Division of Indian Health, and selected data on utilization of hospitals under contract; and eight

Table 1. Public Health Service Facilities Operated for the Navajo

A. Currently Operating PHS Indian Hospitals

Location	Construction prior to transfer		Change in status since transfer to PHS	Bed Capacity March 31, 1961	Construction costs since July 1, 1955
	Dates	Bed capacity			
General Hospitals					
Crownpoint, N. Mex.	Constructed 1914 Replaced 1939	32 56	New water storage facilities and sewerage line	65 a/	$ 50,000
Fort Defiance, Ariz. General	Constructed 1939	115	New and expanded outpatient department and conversion to 100-bed general hospital with 25 tuberculosis bed unit in process	159 a/	418,200
Tuberculosis	Constructed 1912	93			
Shiprock, N. Mex.	Constructed 1908 Replaced 1915	41 41	New replacement hospital constructed by PHS, opened May 1960 b/	75	1,748,400
Tuba City, Ariz.	Constructed 1928 Enlarged in 1930 Replaced 1954 (Long-Range Rehabilitation Program)	24 48 75	New central heating plant and maintenance shop	75	447,000
Winslow, Ariz.	Constructed 1933 Converted to general hospital 1954	73(incl. 35 TB) 57	--	53 a/	--
Gallup, N.Mex.	--	--	New general hospital constructed by PHS and opened April 1961. Also serving as referral hospital for facilities in the Area.	200	3,770,000

B. Facilities Formerly Operated as Indian Hospitals

Replaced by PHS Indian Health Centers:

Location	Dates	Change in status since transfer to PHS	Construction costs since July 1, 1955
Chinle, Ariz.	Constructed 1932, converted to health center, 1950	New PHS Health Center completed June 1959	$ 223,340
Kayenta, Ariz.	Constructed 1929, closed 1944	New PHS Health Center completed November 1958	203,840

Tohatchi, N. Mex.	Constructed 1927, converted to health center, 1946	New PHS Health Center completed November 1958	121,650
Replaced by Field Health Clinic Services c/			
Fort Wingate, N. Mex.	Constructed 1889, closed 1946	Tohatchi Health Center provides clinic services at this location	
Leupp, Ariz.	Constructed 1929, closed 1943	Winslow PHS Hospital provides clinic services at this location	
Toadlena, Ariz.	Constructed 1926, closed 1944	Shiprock PHS Hospital provides clinic services at this location	

C. Other PHS Indian Health Facilities

New Field Health Stations:

Location	Dates	Construction costs since July 1,1955
Cornfields, Pinon, Round Rock, White Cone, Ariz.; Pueblo Pintado, N. Mex. c/	All 5 PHS Health Stations completed in 1959.	$ 118,900 ($23,780 each)

PHS Indian School Health Centers:

Intermountain (BIA)Boarding School, Brigham City, Utah d/	Boarding School established in 1950 (a former V.A. hospital transferred to BIA); PHS operates complete school health program and infirmary service. Outpatient medical and dental facilities remodeled and dental assistant and nurse schools established May 1959.	$ 124,455

D. PHS Staff Housing -- Permanent Quarters Constructed or Authorized 1957 through 1961

	Location of Housing								
Housing Units	Kayenta Ariz.	Crownpoint N. Mex.	Chinle Ariz.	Shiprock Ariz.	Tohatchi N. Mex.	Ft.Defiance Ariz.	Tuba City Ariz.	Gallup N.Mex.	Total
Number	13	14	11	76	2	29	13	9	167
Construction Costs ($)	343,100	400,150	308,580	1,510,700	52,880	751,730	336,200	300,000	$4,003,340

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a/ Reported available beds.

b/ The hospital replacement was authorized under the Long-Range Rehabilitation Program in 1950. Planning funds were appropriated in 1954. Construction funds were appropriated to the Public Health Service in 1956.

c/ Additional Field health medical and dental services are made available at numerous other locations throughout the reservation.

d/ The PHS provides school health services at numerous other schools at which Navajo children are enrolled.

TABLE 2. PUBLIC HEALTH SERVICE FACILITIES FOR THE NAVAJO:
SUMMARY OF INPATIENT AND OUTPATIENT SERVICES a/ - FISCAL YEAR 1960

A. PHS Indian Hospitals

	Type of Service						
	Adult and Pediatrics			Hospital Newborn		Outpatient Visits	
Hospital and Type of Patients	Admissions	Aver. daily patient load	Aver. length of stay	Births	Newborn census	Medical b/	Dental
Hospitals - Total	10,641	348		1,936	20.4	138,210	19,827
General Medical & Surgical	10,342	290					
Tuberculosis c/	299	58					
Crownpoint, N. Mex.	1,161	37	9.9	199	2.6	16,502	2,172
Fort Defiance, Ariz.							
General Medical & Surgical	3,185	115	13.3	555	7.0	35,803	6,069
Tuberculosis	299	58	115.6				
Shiprock, N. Mex.	2,381	36	5.6	483	3.8	44,160	5,955
Tuba City, Ariz.	2,501	71	10.6	461	4.5	29,036	4,294
Winslow, Ariz.	1,114	31	10.0	238	2.5	12,709	1,337

B. PHS Health Centers

Health Centers	Medical visits	Dental visits
Health Centers - Total	58,372	10,902
Chinle, Ariz.	25,533	4,108
Gallup, N. Mex.	18,455	2,336
Kayenta, Ariz.	8,026	1,763
Tohatchi, N. Mex.	6,358	2,695
School Health Center		
Intermountain (BIA) Boarding School, Brigham City, Utah	27,679	4.320

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a/ In addition, services are available in facilities under contract. See Table 4A.
b/ Visits at hospital outpatient departments as well as field clinic and home visits.
c/ Navajo patients also hospitalized at the PHS Indian Sanatorium, Albuquerque, N. Mex., workload data excluded.

Table 3. Utilization of Division of Indian Health General Hospitals on the Navajo - Specified Fiscal Years

Type of Workload by Location	Fiscal Years				
	1953	1955	1958	1959	1960
PHS Indian Hospitals - Total					
Admissions - General patients	6,202	6,458	9,294	9,509	10,342
TB patients	190	162	331	374	299
Births in hospitals	1,175	1,294	1,674	1,813	1,936
Average daily patient census (excl. newborn) -					
General patients	211	201	250	252	290
TB patients	95	94	80	62	58
Outpatient visits	57,923 a/	62,774 a/	98,486	111,082	138,210
PHS Indian Hospitals					
Admissions - Total - General and TB	6,392	6,620	9,625	9,883	10,641
General	6,202	6,458	9,294	9,509	10,342
Tuberculosis	190	162	331	374	299
Crownpoint, N. Mex.	978	1,030	1,110	1,312	1,161
Fort Defiance, Ariz. - General	1,913	1,926	2,507	2,758	3,185
TB	190	162	331	374	299
Shiprock, N. Mex.	1,205	1,282	2,201	2,271	2,381
Tuba City, Ariz.	1,173	1,400	2,240	2,020	2,501
Winslow, Ariz.	933	820	1,236	1,148	1,114
Births in Hospitals - Total	1,175	1,294	1,674	1,813	1,936
Crownpoint, N. Mex.	132	137	194	232	199
Fort Defiance, Ariz.	408	479	542	543	555
Shiprock, N. Mex.	230	276	267	360	483
Tuba City, Ariz.	201	241	463	452	461
Winslow, Ariz.	204	161	208	226	238

Average Daily Patient Census -					
Total - General and TB patients	306	296	330	314	348
General	211	202	250	252	290
Tuberculosis	95	94	80	62	58
Crownpoint, N. Mex.	33	43	38	41	37
Fort Defiance, Ariz. - General	71	72	94	99	115
TB	95	94	80	62	58
Shiprock, N. Mex.	33	26	29	30	36
Tuba City, Ariz.	34	33	57	53	71
Winslow, Ariz.	40	28	32	29	31
Outpatient Visits to Facility and Field Satellite Clinics - Total	57,923 a/	62,774 a/	98,486	111,082	138,210
Crownpoint, N. Mex.	7,075	6,006	11,982	12,115	16,502
Fort Defiance, Ariz.	22,384	25,089	36,471	32,967	35,803
Shiprock, N. Mex.	12,118	14,003	21,636	32,215	44,160
Tuba City, Ariz.	9,208	11,870	17,471	20,163	29,036
Winslow, Ariz.	7,138	5,806	10,926	13,622	12,709

Table 4. Utilization of Hospitals Under Contract - Specified Fiscal Years

Type of Patient	Average Daily Patient Census 1953	1955	1956	1958	1959	1960
Total	-	-	570	363	323	274
General	b/	b/	48 c/	60 c/	81 c/	70 c/
Tuberculosis	119 d/	448	472	253	193	150
Mental	e/	41	50	50	49	54

a/ Represents treatments.
b/ Few patients - emergency only.
c/ Reflects estimated distribution of Navajo and other New Mexico general patients referred to Bernalillo County-Indian Hospital.
d/ October 1952 - June 1953.
e/ Not available.

For many diseases, yearly changes in totals of reported cases do not reflect trends in actual incidence. They may be due, as in the case of measles, to cyclical patterns of occurrence, to improved reporting, or to intensified case-finding activities. An example of the latter is trachoma, the eye disease which is prevalent among the Indians of the Southwest and for which, in 1957, the Division of Indian Health initiated an intensive case-finding and treatment program on the Navajo Reservation and in off-reservation boarding schools.

Two major epidemics have occurred on the Navajo Reservation in recent years. One, influenza, was part of the world-wide outbreak of this disease in 1957. Nearly 5,000 cases were reported from Navajo facilities during the months of October and November in that year, and it is believed that the actual incidence was much greater. Pneumonia cases increased markedly in subsequent months, and the total cases for 1958 were nearly double that of the previous year.

An outbreak of infectious hepatitis also occurred in 1957, with 164 cases being reported in the month of December, most of them in the Chinle area of the reservation. From a high reported annual total of 178 cases in 1957, the incidence of this disease has declined in each subsequent year to 89 in 1960. This disease also appears to run in cycles, and has been reported with increasing frequency in the general population since the low point in 1957.

In addition to the common diseases of childhood, respiratory infections and the diarrheal diseases are the most frequent causes for which Navajos seek medical care. The preponderance of cases are in the younger age groups, reflecting the large proportion of young people in the population and the emphasis placed on school health. Of the dysentery and gastroenteritis cases reported in 1960, approximately 80% were among children under 15 years of age. About three-quarters of the pneumonia cases were in this same age group.

Table 5. Reported New Cases of Selected Notifiable Diseases
Calendar Years 1958, 1959, 1960*

Disease	Number of Cases		
	1958	1959	1960
Chickenpox	355	396	482
Dysentery, all forms	726	976	1,360
Gastroenteritis	1,239	1,716	2,625
Hepatitis	119	109	89
Measles	1,340	297	1,293
Mumps	391	325	775
Pneumonia	1,989	1,164	1,620
Strep.throat(incl.scarlet fever)	1,741	976	815
Trachoma	1,085	2,396	1,503
Tuberculosis	405	312	321

* Population bases somewhat lower than the total Navajo population were used to compute morbidity rates. The lower bases are considered more representative of the group covered by morbidity reports received by the Division of Indian Health. The estimated base used for 1960 is 77,000.

Table 6. Percent Distribution by Age of Reported New Cases
of Selected Notifiable Diseases: 1960

Disease	Total	Age Group			
		0-4	5-14	15-44	45 & over
Chickenpox	100.0	57.5	39.8	2.3	0.4
Dysentery, all forms	100.0	72.1	7.7	12.1	8.2
Gastroenteritis	100.0	75.7	6.4	11.7	6.1
Hepatitis	100.0	29.2	39.3	25.8	5.6
Measles	100.0	70.8	27.8	1.3	-
Mumps	100.0	11.7	73.4	14.5	0.4
Pneumonia	100.0	63.5	13.0	10.0	13.5
Strep. throat (incl. scarlet fever)	100.0	14.6	39.5	39.1	6.7
Trachoma	100.0	5.8	61.3	22.2	10.6
Tuberculosis	100.0	15.0	13.5	43.3	28.2

The incidence of tuberculosis has shown a marked decline. For the 3-period 1958-1960, the rate per 100,000 population was 463.4, about half that for the period 1953-1955. Despite this encouraging drop, the reported incidence is still about 11 times that of the general population. Slightly less than 30% of the cases were among people under 15 years of age, and about the same proportion in the age group 45 and over. Although overall the cases were about evenly divided between males and females, in the age group 15-44 the females exceeded the males by about 40%.

Table 7. Reported new Cases of Tuberculosis
1953-1955 and 1958-1960

Year	Number of Cases Navajo	Rate per 100,000 Navajo (3-year average)	Rate per 100,000 All Races, U. S.
1953	794	896.1	62.4
1954	600		
1955	478		
1958	405	463.4	42.6
1959	312		
1960	321		

Table 8. Reported New Cases of Tuberculosis: 1960
Percent Distribution by Age and Sex

Age Group	Total	Male	Female
Total	100.0	49.5	50.5
Under 15	28.5	13.2	15.3
15-44	43.3	17.9	25.4
45 & over	28.2	18.5	9.7

Among the Navajo, the birth rate has risen steadily in recent years, and at a faster rate than that for the entire United States population. Each year more Navajo babies are born in hospitals and as more mothers are making use of modern health facilities and public health services, infants enjoy increased chances for survival. Navajo infant registered deaths fell almost 50% from a rate of 110 per 1,000 live births in 1952 to below 60 in 1959 (provisional). The rate for the former year was about 4 times that for all other American babies, whereas in 1959 it was about twice that in the general population. Leading causes of death among Navajo infants are influenza and pneumonia, dysentery and gastritis, and even these diseases are taking fewer lives than in earlier years.

Table 9. Births per 1,000 Population a/
Navajo and U.S., All Races 1952-1959

Year	Live births		
	Navajo		U.S., All Races
	Number	Rates per 1,000 population	Rates per 1,000 population
1959 b/	3,676	47.1	24.1
1958	3,422	45.0	24.3
1957	3,019	40.7	25.0
1956	2,813	38.9	24.9
1955	2,661	37.7	24.6
1954	2,596	37.7	24.9
1953	2,436	36.3	24.6
1952	2,432	37.2	24.7

a/ Population bases used in calculating birth and death rates are estimates of numbers of Navajo people in the Navajo service area. The estimated base used for 1959 is 78,000.
b/ 1959 - provisional rates for Navajo and All Races.

Sources for Tables 9 and 10: Indian data from Navajo Agency reports.
All Races: Vital Statistics - Special Reports -
National Summaries Vol. 52, No. 7, August 24, 1960.

Table 10. Infant Death Rates by Cause
Navajo Average 1954-1956, 1955-1957, 1956-1958;
and U. S. , All Races 1958

Cause of death	Rates per 1,000 live births				
	Navajo				
	1957-1959 Average a/	1956-1958 Average a/	1955-1957 Average a/	1954-1956 Average a/	U. S., All Races 1958
All causes	67.6	70.8	74.6	85.0	27.1
Certain diseases of early Infancy b/	21.1	21.0	20.7	23.7	16.4
Influenza and pneumonia	12.7	14.0	17.3	20.9	2.4
Dysentery, gastritis, etc.	11.8	13.4	12.1	17.4	0.7
Congenital malformations	3.3	3.4	3.5	4.2	3.7
All other causes	18.7	19.0	21.0	18.8	3.9

a/ Averages for three-year periods centered at 1955, 1956, 1957, and 1958.
b/ Includes pneumonia of newborn, diarrhea of newborn, and other diseases of early infancy.

Accidents are now the leading cause of death among Navajos, while tuberculosis, which was leading 10 years ago, has dropped to sixth place. Influenza and pneumonia together rank second and certain diseases of early infancy third. Although a large proportion of Navajo deaths are among infants (an average of 38 percent in the 1957-1959 period), this proportion has declined from about 46 percent in 1954 to approximately 35 in the single year 1959.

Partly as a result of the reduction of the Navajo infant death rate (which still exceeds that for the rest of American babies), the death rate among all Navajos has declined to about eight per 1,000 population.

Table 11. Percent Distribution of Deaths by Age Group
Navajo 1953-1955 and 1957-1959, and U.S.,
All Races, 1958

	Percent of all deaths		
	Navajo		
Age group	1957-1959 Average a/	1953-1955 Average a/	U.S., All Races 1958
All ages	100	100	100
Under 1 Year	38	46	7
1 - 4	11	12	1
5 - 19	5	6	2
20 - 44	17	14	7
45 - 64	11	8	25
65 years and over	18	14	58

a/ Averages are for three-year periods centered at 1954 and 1958.

Sources for Tables 11 and 12: Indian data from Navajo Agency reports.
All Races: Vital Statistics - Special Reports -
National Summaries Vol. 52, No. 7, August 24, 1960.

Table 12. Ten Leading Causes of Death Among Navajo Indians, 1954-1956 through 1957-1959 and U. S., All Races, 1958

	Rates per 100,000 population				
	Navajo				
Cause of Death	1957-1959 a/	1956-1958 a/	1955-1957 a/	1954-1956 a/	U.S., All Races 1958
All Causes	815.6	820.8	730.6	801.7	951.3
Accidents	134.0	127.1	129.7	110.5	52.3
Influenza and pneumonia	99.4	105.5	103.7	118.5	33.2
Certain diseases of early infancy	95.5	91.6	77.2	92.5	39.8
Gastritis, duodenitis, enteritis, etc.	61.3	66.0	57.9	80.7	4.5
Diseases of heart	46.9	45.4	33.6	29.7	367.9
Tuberculosis, all forms	41.2	48.5	52.5	64.2	7.1
Malignant neoplasms	37.2	36.8	27.3	28.8	146.9
Vascular lesions of central nervous system	21.5	21.6	15.9	14.2	110.1
Non-meningococcal meningitis	16.6	16.2	15.5	12.7	1.3
Congenital malformation	16.6	15.3	13.4	18.4	12.4
All other b/					

a/ Navajo rates calculated on three-year moving average.
b/ No rate computed. Residual composed of numerous causes, each involving relatively few deaths.

tables showing trends in vital events (births and deaths) and morbidity among the Navajo. National Office of Vital Statistics data on births and deaths and derived rates are included through 1958, and additional information compiled from Public Health Service facility reports and Navajo Agency records is shown for 1959. Rates derived for 1959 are provisional, pending availability of official vital statistics data. Populations used in computing rates have grown over the years. At present, the Navajo service unit population is about 80,000.

All of the statistics in the following health tables were provided through a system of reports which is designed to reveal the nature of Navajo health needs and the effectiveness of services made available to meet those needs. They serve as a means for measuring improvements, identifying disparities, and providing a basis for program planning. Passing years have brought about improvements in the reporting system and expanded reporting coverage. Some of the improvements have resulted in acquiring new or additional Navajo health information. Similarly, improved and intensified case-finding activities and other services have contributed to expanded knowledge. In some instances, therefore, it is difficult to compare current statistical information with similar information gathered in past years. Nonetheless, some of the following health tables, where data reveal certain trends, include both current information and past data for selected years. The data for specified years before the transfer of the Indian Health Program to the Public Health Service (July 1, 1955) have appeared in previous editions of the Yearbook. The years were selected in terms of the developments which characterized progress in the Long-Range Rehabilitation Program.

The tables and associated texts show that considerable progress has been made in providing modern and more adequate curative and preventive health facilities and staff to meet Navajo health needs. They also show growing numbers of hospital admissions, a higher average daily patient census, and increasing numbers of medical and dental outpatient visits, all of which indicate favorable Navajo response to the improvements. The number of births in hospitals is also increasing, reflecting the effect of greater awareness of the value of modern medical practices as well as Navajo acceptance of available services.

Increased preventive and curative health services have contributed to dramatic changes in the Navajo health picture including the marked reduction in the incidence of tuberculosis, accompanied by a plunging death rate from this disease. Accidents are the leading cause of Navajo deaths; nevertheless, communicable diseases, as a group, continue among the greatest hazards, notably among infants and the younger age groups. Toward the prevention and control of these diseases the Public Health Service continues to direct its effort.

The Navajo-Cornell Field Health Research Project At Many Farms[10]

The Navajo-Cornell Field Health Research Project was initiated on July 1, 1955, by a contractual agreement between the Department of Public Health and preventive Medicine, Cornell University Medical College, and the Division of Indian Health, United States Public Health Service.

The purpose of the project is to define the proper concerns of a health program among the Navajo people, and to attempt to develop practical means for the delivery of the necessary health services in a form acceptable to the people. The basic support for the Field Health Research Project comes from the Division of Indian Health, United States Public Health Service. Additional funds are provided by research grants from the National Institutes of Health of the United States Public Health Service, the Navajo Tribal Council, the Russell Sage Foundation, and the Max Fleischmann Foundation of Nevada. Valuable gifts of drugs, materials, and equipment have come from the Charles Pfizer Company of Brooklyn; The E. R. Squibb Division of Olin Mathieson of New York, the Hyland Laboratories of Los Angeles, and the Santa Fe Railway.

The *Navajo Yearbook*, in previous editions, has carried a detailed account of the work of the Clinic Research Project, and this account is not repeated in the present edition. However, since 1958, two important "segmental" studies have been completed by the Project and the results of these investigations are set forth in the articles which follow, prepared especially for the *Yearbook* by the responsible investigators.

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[10] Conducted by the Department of Public Health and Preventive Medicine Cornell University Medical College, New York City. The responsible investigators are: Walsh McDermott, Livingston Farrand Professor and Chairman, Department of Public Health and Preventive Medicine: Kurt Deuschle, Assistant Professor of Public Health and Preventive Medicine; Hugh Fulmer, Instructor in Public Health and Preventive Medicine; and John Adair, Assistant Professor of Social Anthropology in Public Health and Preventive Medicine.

Socioeconomic Survey of the Many Farms and Rough Rock Navajos

By Tom T. Sasaki

Introductory: The central problem of this inquiry was to assess the socioeconomic situation of a population which lives within the boundary of the area serviced by the Cornell Field Health Research Project[1] at Many Farms.

This report is primarily descriptive of the socioeconomic conditions of the study area for a particular time span, 1958-1959. Earned and unearned incomes for the 354 families included in this report appear to be far lower than that for the Navajo Reservation as a whole ($586 per annum and $2,335)[2] for the period preceding 1957 for the following reasons. The economic situation in this section of the Reservation, as with others, is related to environmental influences and changes in the regional economic conditions. The drought, which had existed prior to the period of the clinic operation (1956), for example, not only was instrumental in reducing the number of Navajo livestock owned, but was also a factor in determining the extent of farming operation which is totally dependent upon spring runoffs from the mountains for its irrigation water. The layoffs in railroad employment over the past few years and completion of construction projects in the vicinity resulted in fewer opportunities for wage work during the period covered by this study. This section of the Reservation may be considered a low-income area even during more prosperous periods, but the general economic slowdown in the wider regions appeared to depress the local situation further.

The Clinic Area: The clinic area lies in the valley along the Chinle Wash and the base of Black Mesa. The Many Farms-

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[1] Conducted by the Department of Public Health and Preventive Medicine, Cornell University Medical College, New York City. The Project is directed by Walsh McDermott, Kurt Deuschle, and John Adair. Support for this project comes from many sources including the Division of Indian Health, United States Public Health Service; National Institutes of Health of the U. S. Public Health Service; the Navajo Tribal Council; The Russell Sage Foundation; and the Max Fleischmann Foundation of Nevada. Field work on which this report is based was carried out during June, July, and August 1959. Collaborating in the field work were William Nydigger, William Morgan, and Mary Rockefeller. The writer is indebted to many persons in the Navajo Service at Window Rock, Arizona, and in the Area Office in Gallup of the Bureau of Indian Affairs, for their cooperation in facilitating the research. Appreciation is also expressed for the help given by the Arizona State Employment Office.

[2] *The Navajo Yearbook,* Report No. VII, p. 109.

Rough Rock District includes an irrigation project which is located at Many Farms; three trading posts, one each at Many Farms, Rough Rock, and Valley Store; and four elementary schools — a day school at Many Farms, a boarding school at Rough Rock, a trailer day school at Valley Store, and a mission boarding school at Rough Rock. A census completed in April 1958 revealed a population of 2,371 persons. The age and sex of the project population is comparable to the age and sex composition of the total Reservation population with two minor exceptions; there are a few more older people and a smaller number of men in the 23 to 39-year-old age group in the project population.[3]

The main population concentration is along Navajo Highway 8 which runs north-south through the valley. The social interaction patterns of this population and the clustering of hogans and houses reveal that there are two distinct identifiable social units — Valley Store and Many Farms. Another area of heavy population concentration is Rough Rock, some 25 miles east of the clinic compound and linked to Many Farms by secondary roads. The remainder of the population is scattered with perhaps the most inaccessible section being, particularly during the periods of snowfall and rains, Black Mountain which rises sharply west and south of Rough Rock.

Procedure: Data for this study were obtained from many sources on 809 persons fourteen years of age and over who live in the clinic area and who visited the clinic at least once. Information from the Bureau of Indian Affairs was obtained through interviews with officials as well as from the local offices of the following Branches: Land Operations, Welfare, Education, and Relocation. Through the courtesy of the Arizona State Employment Office, data on migratory and Reservation labor were secured from the office located at Chinle. The Community Services Branch of the Navajo Tribe contributed information regarding its Tribal Works Project as well as other aspects of its welfare program. Additional materials regarding employment and welfare were obtained from proprietors and managers of the three trading posts situated within the boundary serviced by the clinic.

Also used were data in the medical files, interviews with Navajo Health Visitors associated with the clinic, and interviews which were conducted with forty representatives of randomly selected camps.

The Results: The results of this investigation of 809 individuals in the study will be presented as follows: the sociological characteristics of the population; the over-all economic picture as presented by their known occupational activities; comparative data on groups representing the various occupational categories and migration patterns; and the sources and extent of unearned income received by the residents of the Many Farms - Rough Rock communities.

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[3] *The Navajo Yearbook*, 1958, Report No. VII, p. 43.

Sociological Characteristics

Sex Ratio. Of the total study population (809), excluding those persons 65 years of age or older,[4] 51.5 per cent are females with a larger number of this sex in all age categories except for those which fall into the following age ranges: 41-45, 46-50, and 56-60 (See Figure No. 1).

School Population. The population for this study does not necessarily represent the population which remains in Many Farms and vicinity throughout the major portion of the year. Fifty-five of these individuals were away at boarding schools for a period of nine months. There were, in addition, 108 persons who fell into the 14-25 years category who were not included in this study because they had not made visits to the clinic and, therefore, records on these persons were not available.[5]

Figure No. 1: Age and Sex Distribution

AGE	MALES	FEMALES
65 and over	45	37
61-64	14	14
56-60	29	19
51-55	20	24
46-50	26	21
41-45	40	30
36-40	29	36
31-35	40	49
26-30	52	58
21-25	52	61
14-20	81	106

English-Speaking Skill. Of the total 809 persons 37 per cent (296) were able to speak and understand communications in the English language. The degree of competence, however, was not tested. The chief criteria for including an individual in this category was the extent of his education, or whether or not the Health

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[4] Information on this group is presented as part of the section on Welfare.

[5] From the Bureau of Indian Affairs school records at Chinle.

Visitor from the clinic had indicated that he did or did not speak English.

Of the 296 persons listed as being able to communicate in English, 56 per cent were men and 44 per cent were women. Although there were many men who had not had formal education, they had acquired the speech skill in their work situations with non-Navajos and thus were placed in the category of English speakers.

English-speaking skill was related to age.[6] This reflects in part increased school attendance and contacts with non-Navajos in recent years. Of the total number of males 14 years of age and over (45 per cent or 168 of 368), sixty-two per cent are in the 14 to 29 years of age category. As for women, 30 per cent (131) of the total females (441) fourteen years of age and over speak English. Eighty per cent (105 of 131) of the English-speaking females fell into the 14 to 29 years category (See Figure No. 2).

Figure No. 2: English-Speaking Skill

	Number	Per cent
English Speakers	296	37%
Non-English Speakers	513	63
Total	809	100%
English Speakers		
Males 14-29 years of age	103	62%
Males 31-64 years of age	62	38
Total	165	100%
Females 14-29	105	80%
Females 30-64	26	20
Total	131	100%

The Economic Situation

Earned Income

Sources of Income: Most types of work performed by Many Farms residents were seasonal and linked closely with the Navajos' work-skill level, ability to speak English, and opportunities available to them.

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[6] Although 55 persons in the 14 to 30 age category were away at school, as mentioned earlier, they are included in this tabulation.

Many Farms Navajos earned their incomes primarily from non-agricultural employment, although migratory agricultural labor was the source of work for the largest number of adult Navajos.

The most affluent were perhaps those persons who were steadily employed in the Many Farms-Rough Rock area by the Bureau of Indian Affairs, and the Cornell Medical Clinic. Fourteen persons earned a total of $48,300 from these two organizations.

The second highest income category included those men who were employed as skilled or semi-skilled laborers in the uranium mines and the ore-processing plants at Shiprock, Mexican Hat, and Tuba City, and on road construction projects in the vicinity. Most of these persons were not in residence at Many Farms during the greater part of the year. There were 12 men engaged in these types of work earning for the 1958-1959 season, a total of $30,777.[7]

Railroad employment, which a few years ago weighed heavily in the income received by the Many Farms residents, declined during the past three years. In 1956 seventy-five (75) persons were employed by the railroad companies, but by 1959 the number had dropped to 26 for an estimated income of $34,000, which included unemployment compensation.[8] The reduction in railroad employment lowered the cash income received from this source by two-thirds, or approximately $100,000.

The source of cash income for the largest number of Navajos was from seasonal agriculture in Idaho, Colorado, and Arizona. Unlike the previous work categories which limited opportunities to men, here women as well as men were employed. A total of 203 persons, including 98 women, secured jobs as field hands between 1957 and 1959. Income from this source varied between $200 for about three weeks work for husband and wife in the potato fields in Idaho and Colorado to $400 for a 3-month period in Phoenix, Arizona. For the period May 1958 through April 1959, one hundred forty-six (146) persons engaged in agricultural work, and earned a total of $32,800.

The data reveal that many persons who were employed on the railroad also found employment in the agricultural fields and in other non-agricultural work. Of the 96 persons who had worked on the railroads during 1957, 1958, and 1959, forty-seven (47), or about one-half had been employed in the various agricultural areas as seasonal laborers, while another 7 had had work experiences in other non-agricultural work.

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[7] From the files of the State Employment Service.

[8] Figures processed from the information given by traders.

The seasonal nature of agricultural work is revealed in the migration pattern of these people. From January 16 to April 30, August 1 to August 30, and October 16 through October 31 no persons left for agricultural work. Likewise from November 1 to January 14, over the period from 1956 through 1959, an average of 40 persons found employment in Phoenix. The peak months for hiring farm labor for the years cited above were between May 16 and June 30 when beet-thinning work was at its height, with an average of 120 persons away from the clinic area. Another peak period occurred during the potato harvest between September 15 and October 15. The seasonal migration pattern is charted on Figure 3.

Figure No. 3: Seasonal Migration Pattern

	Number	Off-Reservation Students	Per cent in Residence
Jan. 1-15	40	55	89.5
16-31	0	55	93.7
Feb. 1-15	0	55	93.7
16-28	0	55	93.7
Mar. 1-15	0	55	93.7
16-31	0	55	93.7
Apr. 1-15	0	55	93.7
16-30	0	55	93.7
May 1-15	53	55	87.8
16-31	130	0	85.3
June 1-15	129	0	85.3
16-30	118	0	86.6
July 1-15	55	0	93.7
16-31	39	0	95.6
Aug. 1-15	0	0	100.0
16-31	0	0	100.0
Sept. 1-15	14	55	92.2
16-30	112	55	82.9
Oct. 1-15	111	55	82.9
16-31	0	55	93.7
Nov. 1-15	40	55	89.5
16-30	41	55	89.5
Dec. 1-15	41	55	89.5
16-31	41	55	89.5

Livestock: The total estimated income from this source for the 1958-1959 period was $13,000. Less than 12 per cent of the population 14 years of age and over owned livestock. Based on figures obtained for the sample of 312 persons, it is apparent that the vast majority of the operators have enough sheep only for domestic use.

Of those who owned livestock over one-half (58%) had fifty or fewer head, 28.5% had between 51 and 75, and 13.5% had 100 head or more.

Figure 4 reveals the ownership pattern.

Figure No. 4

No livestock	267		88.8%
1-25	16	58.0%	11.2%
26-50	10		
51-75	11	28.5%	
76-100	2		
101-125	1	4.5%	
126-150	1		
151 plus	4	9.0%	
Total	312		100.0%

Irrigation Farming: In general, income from the 1600 acres under irrigation is meager and of little significance to the total economy of the Many Farms area. The crops produced are mostly consumed at home and are, to the farm assignees, supplementary sources of food for their families. In a few cases, however, crops serve as a commodity with which to exchange for other types of foodstuff or materials which can be converted into income-producing goods. For example, wives of assignees who own no livestock are known to exchange corn for meat as well as wool with Navajos who live in the Rough Rock and Black Mountain areas.

From its inception the Navajos have had difficulty cultivating their Many Farms assignments. Much of the land contains clay which becomes sticky and heavy when wet, and hard when dry. Because of the peculiarities of the soil and subsoil, many engineering problems are presented, and these confront the farmers with difficulties. A hard pan several feet below the surface of the soil creates plowing and drainage problems. During the period between 1954 and 1959 the water available for irrigation was uneven, and at best it was estimated that only 500 acres could be properly irrigated. In 1956 the reservoir became completely dry.

During the three-year period following 1956, sixty-five (65) individuals relinquished their farms for one or another reasons stated above. According to the records of the Bureau Branch of Land Operations almost 50 per cent of these were relinquished in 1959.

Not all of the 1600 acres was poor, obviously, and fewer than one-half, or 51 persons had applied and retained their farms between 1947 and 1959.

Seventy-one acres of irrigated farmland known as the "B Project" are located north of Many Farms and east of the main north-south highway. This area is at the extreme north end of the main canal system. The soil is of much better quality than elsewhere in the valley, and 16 farmers cultivate plots of land which vary between 1.8 and 12.4 acres.

Farms by the Reservoir and Dry Farming: Thirty-one nuclear families from 26 camps had farms by the reservoir during the summer of 1959. These plots were very small, ranging between one and three acres and planted mostly in corn. Seventy-four per cent of these farms were cultivated by families who had no irrigated plots.

Dry farming was not carried on extensively. Farms which were cultivated during the summer of 1958 were left fallow during the following season because of the lack of moisture.

Tribal Works Project

For the period between May 1958 and April 1959, one hundred ninety (190) persons in the clinic area engaged in the various Tribal Works Projects. The total amount earned through participation in these activities was $14,448.

Forest Fire-Fighting

During 1959 twenty-six (26) men were employed for a period of 3 days to fight fires in the National Forest. The total amount earned was $100 per person, or $2,600.

Unearned Income

Of the 809 persons included in this study, 322[9] or 38 per cent of the population received direct aid from the State, Bureau, and Tribal offices. The aid ranged from cash benefits [Old Age Assistance, Aid to Dependent Children, Aid to the Blind (State), and General Assistance (BIA)] to materials [children's clothing, housing materials, prosthetics, food surplus, etc. (Tribal)]. Not included are other benefits such as livestock feed (furnished by the U. S. Government from its surplus commodities stockpile and distributed at Tribal expense) and Social Security.

Cash Benefits—State Welfare Service

Perhaps the largest source of unearned income was for Old Age Assistance ($15,400). The number receiving this type of aid was 24 persons who received an average of $53.20 per month. Eighty persons in the clinic area were 65 years of age or over, but only 24 persons (30%) qualified for this type of aid. The eligibility requirements are that a single person must have less than $800 in resources, a couple, $1,200.

Twenty-seven persons applied for Aid to Dependent Children. Of these eight were active cases receiving from $16 to $161 per month. The average amount received was $52 per month.

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[9] Actually the total number of beneficiaries is much larger, since the amount of surplus food commodities was distributed to individuals representing nuclear consumption groups. Thus, one person might receive N number of food units to feed from one person to five or six. The total number of persons who received surplus foods was 744.

The person who received the highest figure was an extreme case inasmuch as he received this only during the summer months when his children had returned home from boarding school. The total estimated income from this source was $7,500 for the 1958-1959 period.

General Assistance—Bureau of Indian Affairs: Another form of cash assistance is given to Navajos who do not qualify for State or Tribal assistance, but who nevertheless are felt to be in need. In this category are included those persons who may be a few years under 65, the age which might qualify the person for State Old Age Assistance or Social Security; or they may have disabilities which prevent them from working for wages. Ten persons received $3,320 during the study period.

Tribal Welfare: Two subcategories are included here—direct aid and surplus food commodities. Seventy-six (76) persons received direct aid in the form of financial aid and clothing, funds to rebuild burned hogans, housing materials, burial expenses, and prosthetics. By far the greatest number received aid in the form of clothing for school children. The breakdown in terms of number of persons receiving these various types is as follows:

Figure No. 5

Financial aid and clothing	49	$20 per unit x 49	$ 980
Aid for burn-outs	1	Not to exceed $300	300
Housing materials	18	Not to exceed $600	10,800
Death cases	1	About $65	65
Dental, eyeglasses and artificial appliances	12	About $19.50 x 12	234
Total	81	Total	$12,379

Figure No. 6: Earned Income for the 1959 Fiscal Year

Sources of Employment	No. of Persons	Total Earnings	Percentage
Clinic and BIA Employment	14	$ 48,300	28%
Railroad	26	34,000	19
Migratory Agriculture	146	32,800	18
Reservation: non-Agriculture	12	30,777	17
Tribal Works Projects	190	14,448	8.5
Livestock		13,000	7
Forest Fire-fighting	26	2,600	1.5
Total	414	$175,825	100%

Figure No. 7: Unearned Income for the 1959 Fiscal Year

Sources	No. of Persons	Total Amount
State Welfare		
Old Age Assistance	24	$15,400
Aid to Dependent Children	8	7,500
Bureau of Indian Affairs		
General Assistance	10	3,320
Tribal Welfare	81	12,379
Total	123	$38,599

As for surplus foods, a total of 221 persons received packages for 904 individuals. The range of persons in each family was between 1 and 12 persons, with the average number being 4. The breakdown in terms of number of packages received by each person is as follows:

No. of Package (s)	No. of Persons in Group
1	18
2	27
3	12
4	15
5	14
6	11
7	9
8	7
9	2
10	1
11	0
12	1

Summary

Figure 6 summarizes the range of employment engaged in by the Many Farms-Rough Rock residents, and the sources and amount of income derived from the residents' economic and non-economic pursuits.

Analysis of the available data indicates that 82 per cent of the income for the Many Farms residents was earned and 18 per cent was derived from welfare sources. Of the earned income 60 per cent was obtained from work opportunities including the Tribal Works Project on the Reservation. The single largest source of income was earned by but 3 per cent of the working population. These were salaried personnel attached to the Cornell Medical Clinic, and the Bureau of Indian Affairs. When considered over the span of the several preceding years, income from railroad employment was drastically reduced. The railroads, which during the 1958 fiscal year contributed approximately 30 per cent of the earned income and 30 per cent of the total income from all sources,[10] accounted for only 19 per cent of the earnings of the Many Farms workers for the 1959 fiscal year. Another work category which utilized few persons, but which yielded high returns was employment in non-agricultural reservation labor from which 17 per cent of the total income was derived. Two work categories, migratory agricultural labor and Tribal Works Projects, were responsible for the employment of the largest number of individuals, but the returns to the individuals were rather low. The first included 146 persons to account for 18 per cent of the earnings; and the second utilized 190 individuals to contribute 8.5 per cent of the earned income. Earnings from the sale of livestock and livestock products for the Many Farm operator were far below the Reservation average for the 1958 fiscal year. Whereas 11.8 per cent[11] of the income for the general Navajo population was from this source; it contributed only 7 per cent to the Many Farms-Rough Rock residents.

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[10] *The Navajo Yearbook,* Report VIII, Fiscal Year, 1958, p. 106.

The results reveal that the income level of the vast majority of the residents of the Many Farms-Rough Rock area is extremely low, lower than that for the Navajo population as a whole. We may conclude that drastic efforts must be made to increase the opportunities available for increasing the work skill level of its residents while at the same time making emergency earnings possible through such programs as the Tribal Works Projects.

A Report of the Demographical Studies During the Past Five Years

By
Bernice W. Loughlin, PHN
Kenneth Dennison

Introduction: When the Navajo-Cornell Project was started in May, 1956, one of its stated aims was a survey in depth of the health problems of the Navajo as seen within the project area. The area assigned to the project is in the center of the vast Navajo Reservation and was almost unknown medically. Documentation was further complicated by the lack of usable data. It was impossible to accomplish certain research objectives because of this lack of reliable vital statistics. Vital statistics for the reservation, for example, are still reported on an incidence basis; that is, any given figures on births or deaths represent those cases which come to the attention of the recorder. They do not reflect the actual prevalence.

Emphasis on the collection of this information was placed as a major objective in July, 1958, and the initial steps were taken in connection with plans for developing a better program in maternal and child health, both in the clinics and in the field. At the same time other data were gathered in relation to morbidity and mortality statistics, something which is obviously fundamental to a health program concerned with the treatment and prevention of disease.

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[11] *Op. cit.*

Method: Data were gathered by the entire staff of the project and evaluated largely through informal conferences among the professional staff and the Navajo project assistant. A birth and death registry was inaugurated and the camp file system previously set up was emphasized.[1] These have been kept current ever since. In addition, contacts were made with Sage Memorial Presbyterian Hospital, Fort Defiance Indian Hospital and with the sub-agency superintendent's files. Contacts were also made in person and by letter with other missions, hospitals, clinics, trading posts and the sub-agency school superintendent's office. As a part of this program a member of the staff was appointed subregistrar for the State of Arizona, responsible for reporting vital statistics in the area through the sub-agency office in Chinle.

With the inception of the camp record system, in 1957, everyone was identified as a part of a camp which is nearly always a closely knit, family group. Moreover, this record system has solved other recording problems such as duplicate charts, changed names, inadequate identification, lost charts, etc. As of January 1, 1960, there were 148 camps in the project area. These included 406 individual family hogans and a total of 2292 persons. Personal visits were made to each camp by a member of the health team thus providing a record of siblings, clan affiliations, age relationships to other members of the family, census numbers and various other data.

All data were rechecked for accuracy with the Tribal Census Office at Window Rock, the sub-agency census office, school records, mission records, social security records. Actual house to house count provided the data for the first few years; however, since the Januay 1, 1959 census count this has been done by a complete review of the master family folders.

Currently a special file is kept of all pregnancies in the area whether or not they come into the clinic for care. The file is checked periodically for probable termination of a pregnancy which has not been reported. All of these as well as all of the newborns become a part of the field program and are visited as soon as possible. In this way it is also possible to find stillbirths, abortions, and neonatal deaths. Hospital records are checked regularly for newborns and deaths.

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[1] See previous reports of the project in the Navajo Yearbooks 1955-58.

Results: The integration of anthropological, medical, and paramedical programs of the project and the continuing interest of the staff have been a basic ingredient in whatever success has been attained. Through the field and clinic work of the health visitors[2] trained on the project and assigned consistently to an area where they became well known and trusted, information is being obtained which probably could not have been obtained three years ago. Current vital statistics appear to be as complete as can be reasonably expected.

The map of the project area was marked off into 34 areas, each containing 25 square miles, or less in some of the fringe areas. No area contains more than 25 square miles.

The most densely populated segment of the project area contains 12-13 persons per square mile which is an admittedly rural area. The least populated areas contain less than one person per square mile. However, it has been determined that when the numbers of births and deaths are studied on a per person basis, the concentration seems to have no appreciable effect. For example, area No. 4, those people who live in concentrations of from 15-19 persons per five square miles, includes 20.4% of the population and contributed 22.0% of the births.

It is evident that there has been some increase in population in the five years over and above the births (479) over deaths (56) which means an increase of 423 persons. The population figures show 1830 persons residing here in 1955 and in 1960 (Jan. 1) a population of 2292 or an increase of 462 persons. This can be explained as better reporting of each camp and the discovery of persons who reside in the camp but were missed during the early attempts to establish census figures. Some of these 39 persons may also be people who were residing and working elsewhere in 1955 but who have since moved back into the area permanently. In this group the movement is, of necessity, in both directions so that these figures would represent the net gain of persons moving into the area (or returning) over those moving away, probably under relocation plans.

The data for 1955 are incomplete although it should be noted that in the charts regarding places of birth and death the year 1955 has been considered. This clinic opened in May, 1956, and figures prior to that time are by history only, although they have been subjected to the same verification processes.

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[2] Loughlin, Bernice W. and Mansell, Ellen. "Training Health Workers on the Navajo Indian Reservation", *Nursing Times*, January 30, 1959, London, England. Mansell, Ellen and Loughlin, Bernice W., "The Navajo Health Visitor," *Practical Nursing*, April, 1958, New York, New York.

VITAL STATISTICS FOR THE MANY FARMS-ROUGH ROCK AREA OF THE NAVAJO RESERVATION FOR THE YEARS 1955 THROUGH 1960

NAVAJO-CORNELL FIELD HEALTH RESEARCH PROJECT REPORT 4/10/61 BWL.

Year	1955	1956	1957	1958	1959	1960	6-Year Average
Total Population	1830	1895	1942	2047	2126	2292	
Number live births	99	94	98	97	98	107	
Number infant deaths	3	5	12	7	2	6	
Number all deaths	11	11	22	16	7	9	
Number women 15-44 yrs.	405	417	417	421	426	442	
Birth rate per 1000 pop.	54.1	49.6	50.5	47.4	46.1	46.7	49.1
Infant death rate per 1000 live births	30.3	53.2	122.4	72.2	20.4	56.0	59.2
Crude death rate per 1000 pop	6.0	5.8	11.3	7.8	3.3	3.9	6.3
Fertility rate per 1000 women 15-44 yrs.	244.4	225.4	235.0	230.4	228.7	242.1	234.3

VITAL STATISTICS FOR THE PROJECT 1955-1959. FIVE YEAR AVERAGE COMPARED TO THE NAVAJO RESERVATION AND US, (ALL RACES)

	1955	1956	1957	1958	1959*	Five Year Averages		
						Project	Navajo	US
Population numbers	1830	1895	1972	2047	2126			
Number Live births	99	94	98	95	93			
Number infant deaths	3	5	11	7	2			
Total deaths	11	11	22	16	7			
Number females 15-44 years	405	417	417	421	426			
Birth rate/1000 pop.	54.1	53.8	49.7	46.4	43.7	49.5	42.0	24.6
Fertility rate per 1000 women 15-44 years	244.4	224.1	230.6	225.6	218.3	228.6		
Infant death rate per 1000 LB	27.3	53.2	122.4	73.6	21.5	58.5	67.6**	26.2
Crude death rate per 1000 pop.	6.0	5.9	11.1	7.8	3.2	6.8	7.3	9.4

* All figures for 1959 are provisional
** Represents average for 3-year period 1957-1959.

Population for 1960= 2292

No maternal deaths have occurred.

MANY FARMS DEATHS BY AGE AND PLACE

1955 - 1959

age	MALES				FEMALES				TOTALS				
	hosp	home	other*	unk	hosp	home	other	unk	hosp	home	other	unk	total
under 1 mo.	1	0	0	0	2	1	0	0	3	1	0	0	4
1 mo-1 yr.	4	5	2	0	7	5	2	0	11	10	4	0	25
1-2 yrs.	0	3	0	0	2	0	0	1	2	3	0	1	6
2-3 yrs.	0	0	0	0	1	0	0	0	1	0	0	0	1
3-4 yrs.	0	0	0	0	0	0	0	0	0	0	0	0	0
4-5 yrs.	0	0	1	0	0	0	0	0	0	0	1	0	1
5-14 yrs.	0	0	0	0	0	1	0	0	0	1	0	0	1
15-24 yrs.	0	0	0	4	0	0	0	0	0	0	0	4	4
25-34 yrs.	3	0	0	1	0	0	0	0	3	0	0	1	4
35-44 yrs.	0	0	0	0	0	1	0	0	0	1	0	0	1
45-54 yrs.	0	0	2	0	1	0	0	0	1	0	2	0	3
55-64 yrs.	0	1	0	0	1	1	0	0	1	2	0	0	3
65-74 yrs.	0	1	0	0	2	0	1	0	2	1	1	0	4
75-85 yrs.	3	0	0	0	3	0	0	0	6	0	0	0	6
85 ≠	1	0	0	0	2	1	0	0	3	1	0	0	4
Totals	12	10	5	5	21	10	3	1	33	20	8	6	67
	males, all ages--32				females, all ages--35				total deaths--67				

*Those in this category died on the way to a clinic or hospital, a school or off reservation.

It is apparent from these figures that there has been a slight annual decrease in the number of births over the five year span in spite of a slight increase in the numbers of women in the child bearing ages as well as in the total population. This is not explainable by the data on hand.

Discussion: Because the population of the area covered by the project is small, a single birth or death creates a sizeable change in the rates quoted. It is now possible, by using a five year average, to give a more significant rate. This has been possible only since the end of 1959.

The project population is very young with slightly more than three-fourths of the total population under 34 years of age. Nearly 19 percent of the total population are women in the child bearing ages of between 15 and 44 years. There is a high fertility rate (228.6 per 1000 women in the child bearing ages) and a high birth rate (49.5 per 1000 population). Because 19.6% of the population are under school age and another 28.3% are in the pediatric group up to 14 years of age, it is obvious that hospitals, field clinics, and hospital clinics will have to be planned for a high pediatric

PLACE OF BIRTH OF PROJECT BABIES AND PERCENTAGES BORN IN EACH PLACE
1956-1959

	1956		1957		1958		1959		Total		%	
SEX SEX	M	F	M	F	M	F	M	F	M	F	T	%
Delivered with MD att.												
Hospital delivery	19	30	25	20	21	37	21	24	86	111	197	49.2
Non-hosp, MD delivered	0	0	1	0	1	4	11	3	13	7	20	5.2
Delivered without MD												
Hogan	23	13	29	22	14	15	16	18	82	68	150	39.5
Non-hogan	2	1	1	0	0	3	0	0	3	4	7	1.8
Unknown	1	5	0	0	0	0	0	0	1	5	6	1.6
Total births	45	49	56	42	36	59	48	45	185	195	380	100.

Definitions: a hospital is defined as having complete facilities for inpatient care.

Non-hospital, MD attending is most often a clinic or a "hospital" with only beds for a few deliveries but not for complete domiciliary care.

In these two places of birth a certificate is issued by the attending physician. The birth would be recorded with the state and Tribal Census Office.

A hogan birth is one in which some preparation has been made for delivery by the family, a midwife or experienced person attends the birth.

Non-hogan, non-MD delivered are usually those who are enroute and who have had no preparations for the birth occurring at that place, i.e., in a truck.

case load. It also makes future planning for school desks more realistic.

Although the vital statistics for the project population are more accurate than those for the whole reservation, they should not be applied directly to the total reservation population without qualification. The trend, however, probably reflects the entire reservation demographic picture. Although the project's birth rate of 49.5 per 1000 population appears too high, it is almost certain that the stated average rate for the reservation of 42.0 is too low. In a recent study of a group of infants done by the writer, it was found that 10 percent of the babies known and accepting clinic care were not known to the tribal and governmental statisticians. This is in spite of the presence of an Arizona registrar on the project staff.

The population of the project area shows that there have been some additions other than the normal increase of births over deaths, probably due to the migration for jobs. Statistics also show a slight and unexplained diminution of birth and fertility rates over the past five years.

The density of the population apparently has no effect either on the number of babies born or on the selection of a place of birth. There have been no maternal deaths in five years. However, using the maternal death rate for the USA, a population of this size should not have more than one maternal death in 10 years.

The crude death rate is on a par with those for the Navajo Reservation and the State of New Mexico. All are lower than the USA. A lower rate is definitely indicated because of the low age levels of the population. The project's statistics show that between 1956 and 1959, 57.3% of the births and 50% of the deaths were medically attended. These births and deaths are probably 100% reported through the birth and death certificates. The remaining 42% of the births and 50% of the deaths are recorded only if someone actively seeks the recorder for the purpose of reporting these data.

In spite of the coverage afforded by the large staff necessary for the research aspects of the project, the statistics still indicate that 46.4% of all the deaths occur in the infant (under one year of age) group. An additional 10.7% die between 1 and 4 years of age. Thus 57.1% of all the deaths in the project area for the past five years are under the age of 5 years.

The degree of accuracy apparent in the vital statistics data from the Navajo-Cornell Field Health Research Project was not easily obtained. The concerted effort made by field workers to report all information about the demography of this group, the proximity of the staff to the people, and the fact that the Navajo health worker knows each of the families in his area and can quickly pick up changes, accounted for the reliability of Project statistics. Because of the expense of keeping such a medical staff it would seem to be more economical and practical to train and appoint a "Chapter Record Clerk" who would be in charge of all records and statistics including births, deaths, school enrollment, voting records, etc. These people who know their community intimately could be most effective and useful in collecting crucial census and vital statistics data from the area in which they live.

Conclusions: Data are presented describing the problems of obtaining accurate statistics for the Navajo people and how this has been reinforced in the project area. The population of the project area is young with 77.7% under 34 years of age including 58% under 20 years of age. Nearly 19% are women in the child bearing ages of 15-44 years. A high fertility rate of 228.6 per 1000 women in these ages and a high birth rate of 49.5 per 1000 popula-

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tion show this problem with complete clarity.

19.6% of the population in this area are under 5 years of age. 57.1% of all the deaths occur in this age group.

Births are attended by a physician 57.3% of the time and 50% of the deaths. These are probably totally recorded over the entire reservation. The five year average for infant deaths is 58.5% per 1000 live births.

In spite of the slightly increased population and of the women in the age group of 15-44 there has been a slight unexplained diminution of the birth rate over the five year period.

If the future social planning for the Navajo is to be realistically done it is necessary to improve the recording of vital statistics over the entire reservation. This could probably best be done by a trained group of Navajo workers who are aware of the implications of statistics and who are more closely located to the people.

Irrigation Projects

Historical: Although the traditional economy of the Navajo people is depicted as one based primarily upon stockraising, and although the raising of sheep, goats, horses and a few cattle was, indeed, paramount in the tribal way of life prior to the 1930's, agriculture has also long occupied a position of high importance. The antiquity of agriculture is reflected in the very name applied to The People by their Pueblo neighbours — *Navajo*, a name derived, through Spanish, from Tewa, and meaning "cultivated fields". Old Spanish documents dating from the 17th and 18th centuries clearly distinguish the "Apaches de Navajo", as the Tribe was called, from other Apachean groups, and the Navajo are described, by such 17th Century Writers as Fray Alonso de Benavides (in 1630) as "skillful farmers".

It is believed by anthropologists and historians that, at the time of their arrival in the American Southwest, the Apachean people lived by hunting and seed gathering. However, one group, which was destined to emerge as the Navajo, established close contacts with the Pueblos, borrowing from them a large number of cultural traits including agriculture and agricultural methods. With respect to the latter, certain types of rudimentary irrigation were practiced by the Pueblos, and these were borrowed by the Navajo.

In his comprehensive study[1] of Navajo agriculture Dr. Hill describes three methods of irrigation practiced in traditional times by the Navajo, including (1) the interception of flood waters on land advantageously situated; (2) the diking of flats to catch and hold the spring floods; and (3) ditch irrigation (a practice used to a small extent in the Canyons de Chelley and Del Muerto). In addition, in times of drouth, the growing plants were sometimes watered by hand, the farmers carrying the water from nearby sources in pots or skins after the fashion of the Pueblos.

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[1] Agricultural and Hunting Methods of the Navajo Indians; mimeo 1937, by Dr. W. W. Hill, University of New Mexico, Pp. 14-21.

Ditch irrigation did not come into general use by the Navajo until after their return from Fort Sumner where the technique was introduced on a wide scale as an aspect of the efforts of the Federal Government to make a sedentary agricultural people of the Tribe.

In the traditional agricultural system the principal crops were corn, melons, squash and beans, and Hill[2] estimates that these products contributed more than 50% of the food supply. Of the four crops, corn occupied the position of first importance and, as Hill observes, around this agricultural product "were clustered the rites, tabus, and observances associated with agriculture. Likewise, in ceremony, myth and agricultural education, corn plays a more important role than any of the three other products".

Following the establishment of the Navajo Reservation in 1868, the conversion of the old military post at Fort Defiance for use as an Agency, and the assignment of Indian Agents to administer Federal programs designed to improve the social and economic status of the Navajo people, serious thought was given to the development of the agricultural potential of the Reservation area.

As early as 1880, an effort was made to develop water, apparently designed to meet the needs of livestock as well as that of farmers, judging from a report of Captain F. T. Bennett, 9th Cavalry, acting in the capacity of Indian Agent at Fort Defiance, who wrote:

"We have begun a system of irrigation by means of wind engines and putting down stock pumps throughout the Reservation. Three of the former and 52 of the latter, the honorable Secretary of the Interior having generously granted this year $3,500 for that purpose. This will be at no distant period a means of keeping a large number of them (now living outside) within the limits of the Reservation and also lessen the nomadic character of a large number as they will not require to move from one locality to another in search of water for their herds."[3]

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[2] Op. Cit.

[3] Navajo Agency Letter Book — 1880.

Captain Bennett, writing a year later in 1881, stated that the Navajos "attempted" to raise crops on an area estimated at 8,000-10,000 acres although not more than 2,000 acres could be relied upon in view of the lack of water. Looking toward the future he observed, "I am of the opinion that if the Government should put in a big ditch leading from the San Juan River into the Navajo Reservation (which could be done at a not very great expense) a great many acres could be put into condition to raise good crops, and be relied on, that are now almost barren."[4]

Apparently, some effort had been made in prior years to dam Blue Canyon and thus provide water for irrigation and other purposes in the vicinity of Fort Defiance for, in 1883 Agent D. M. Riordan wrote[5] to the effect that "The additional work on dam and flumes here is rendered necessary by reason of the investigations made into the matter of dams in this canyon. The site I first selected I found after work was done would not do. It had a quicksand bottom, and was faulty otherwise in this canyon. With the ruins of several dams before my eyes scattered along the creek, I determined to put in a dam that would stay or no dam at all.*** The result in previous instances was uniform; the first freshet took the dam out. In one instance the dam stood 5 years because there was no flood. The first one that came along carried away the dam."

In 1886, the sum of $25,000 was made available for water development, largely in the form of log and earthen dam structures at Washington Pass, Tsaile Creek, 18 Mile Spring, the Chinle Valley and Fort Defiance. In 1893, an additional $60,000 was allocated for further development, but two years passed before a technician made his appearance to carry out the projects involved. Unfortunately, the technician was not acquainted with the climatic characteristics of the Reservation area, and within 2 years following completion of the projects, the structures were washed out and lost.

However, the experience acted as a stimulus to similar developments, and some individual Navajos began to erect structures of their own. In a letter dated May 20, 1893, Agent Edwin H. Plummer wrote to the effect that "About halfway between the Agency and Fruitland I visited and inspected a dam built in Cottonwood Wash by an Indian known as Captain Tom. He built cribs of logs and filled them with rocks, backed by earth, making a dam about 25 feet thick which turns nearly all the water of the creek off on a prairie, bringing about 200 acres under irrigation. The work is very creditable. The land is used for pasture and for planting."

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[4] Op. Cit. (1)

[5] Navajo Agency Letter Book — 1883.

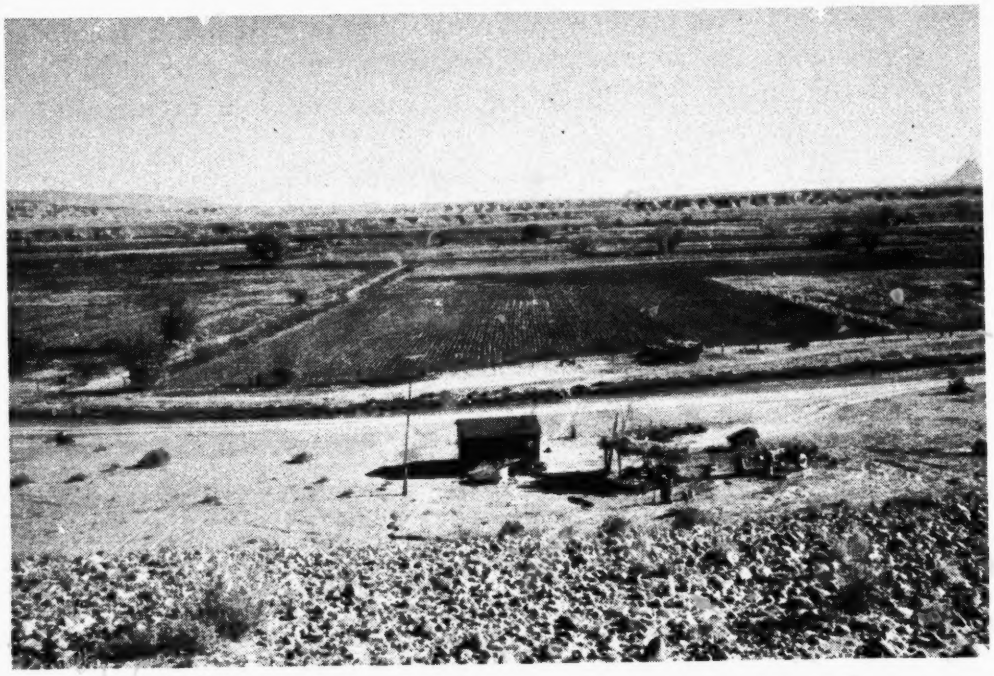
As the years passed additional funds were made available with which to replace old timber and earthen structures with more permanent construction, and for the building of new irrigation projects. All in all, about 67 projects were completed across the years, ranging in size from a few acres to several thousand. Special emphasis was placed on development of the agricultural resources of the Reservation in the 1930's and again in the Long Range Program, and the acreage has grown steadily to include more than 30,000 acres of irrigated land at present.

Although in past decades and centuries stockraising and agriculture were the mainstay of Navajo economy, farm produce was raised and utilized primarily for subsistence purposes — not for trade or commercial purposes. Family plots were generally modest in size and the actual amount of food produced was small. Early efforts to improve agriculture were designed to increase productivity for subsistence purposes, and as irrigation works were developed the acreages assigned to individual families remained small — usually 10 to 20 acres. With the rapid social and economic changes that have taken place on the Navajo Reservation in recent years a new philosophy of land use has begun to emerge based on commercial instead of subsistence principles. This development will be traced and described in greater detail below.

The Decade of the 1950's: Describing the irrigation potential of the Navajo Reservation, the Krug Report of 1948 referred to farming as "second to sheepraising as a source of food and income." At the time this report was written, there were 78 small irrigated tracts, aggregating 23,000 acres and capable of supporting an estimated 400 families on a subsistence basis. The Krug Report estimated a potential of 58,859 acres to be capable of development, exclusive of the large Navajo-San Juan Project. Of this potential acreage, 41,986 acres were described as having an "assured" water supply, and the report estimated that completion of the subjugation program would provide a livelihood for about 800 families (with assignments ranging from 40 to 60 acres per family).

To make full use of the irrigation farming potential, the Long Range Act authorized appropriation of $9,000,000, of which $5,524,375 had been allocated and used for development and construction purposes by the close of the decade in 1960. During the 10-year period, 5,134 acres of new farmland were placed under irrigation on the Navajo Reservation, primarily in the Shiprock area, and irrigation canals and other structures sufficient to serve a much larger acreage were completed. The additional acreage will be developed in future years. In fact, an additional 3,660

A Navajo farmer, newly graduated from the Tribal Farm Training School, establishes his home on a 120-acre tract of land subjugated by the Bureau of Indian Affairs.



Part of the Hogback Irrigation Project, near Shiprock, New Mexico.

acres are scheduled for development on the Hogback Project in the next five years.

The Hogsback Project: During 1959, 800 acres of new land were developed on this project, and 2.8 miles of main canal were built. The total cost was $462,223. In 1960, 1.7 miles of canal were added, including construction of a 60″ steel pipe siphon across Malapai Arroyo, waste drains and allied work. In addition, a cover crop was established on the newly developed acreage. Cost of work conducted during 1960 was $530,783.

Construction during the decade of the 1950's has added 2,975 acres of irrigated farmland on the Hogback Project, bringing the total acreage to approximately 6,000.

The Fruitland Project: During 1959, 122 wooden drop structures were replaced with permanent drops made of concrete, 10 concrete division boxes were built, 32 culverts were installed in the canals and laterals, and 30 permanent type farm turn-out structures were placed, at a total cost of $42,014.

In 1960, 30 additional wooden drops were replaced, 16 farm turn-out structures were built and 29 culverts were installed in canals and laterals at a total cost of $35,693.

The following tables reflect irrigation construction, in summary form, across the decade of the 1950's.

New Lands Subjugated and Placed Under Irrigation Since Inception of Long Range Program - Navajo - Fiscal Year 1951-60

Project	Acreage	Number New Farms	Number of People Benefited by Farms
Fruitland	400	20	100
Hogback			
Pump Unit A	250	11	55
Pump Unit B	725	26	130
Helium Unit	1,200		
Hogback Extension	800	7	35
Many Farms	274	13	65
Ganado	485	16	80
Red Lake	1,000	31	155
Total	5,134	124	620

Acres Irrigated and Crop Value Per Acre

Calendar Year	Irrigated Land Acres	Value Per Acre	Total Crop Value
1951	10,008	$ 64.40	$ 644,401
1952	17,816	51.00	912,784
1953	12,363	50.58	625,347
1954	12,063	57.80	697,241
1955	11,195	56.50	634,520
1956	9,696	57.00	552,855
1957	13,492	47.98	644,298
1958	10,059	53.21	543,467
1959	10,213	47.45	484,576

The Existing Irrigation Agricultural System — Economic Aspects and Land Use Patterns: Of all irrigated farmland developed on the Navajo Reservation, more than 50% lies in the Shiprock-Fruitland area, along the San Juan River in northwestern New Mexico, and of the total new acreage developed during the past 10 years, about 65% lies in this comparatively well watered river valley. Even more intensive agricultural development of this portion of the Reservation will take place when the 110,000 acre Navajo Project is built. In addition to its agricultural resources, the Shiprock area has great industrial potential, part of which is already under development in the form of a major thermo-electric plant near Fruitland.

It is an area of long time agricultural use and one of accelerating cultural change as Dr. Tom T. Sasaki has so ably pointed out in his timely study entitled *Fruitland, New Mexico: A Navajo Community in Transition.*[6]

The development of the Shiprock-Fruitland farm area was given great impetus in the 1930's and 1940's by the need to provide new resources to take the place of livestock. Government policy was based on the development and assignment of subsistence farms—originally defined as 20-acre tracts, but later reduced to 10 acres. Residents of the project area had begun to demand economic units by 1940 because, as Dr. Sasaki observes[7] "By now the Navajos on the Project were rejecting the idea of subsistence farms and expressing their desire to make money from their fields."

However, from members of the Navajo community who lacked assignments, there was continuing pressure to serve as many people as possible on the new agricultural lands. Small assignments of 10-20 acres could provide little more than a place of residence and a source of supplemental income, while the main source of livelihood had, perforce, to come from wage work.

In 1948, a total of 2,468 families used the available irrigation farmland on the Reservation—an average of less than 9 acres per family—and the average value of family assignments was estimated at $300 per unit. At the same time it was estimated that the total available acreage, if reassigned in the form of economic units, could actually support only 400 families at an acceptable economic level.

Despite a growing conviction on the part of the Bureau of Indian Affairs that small, subsistence assignments were impractical, the pressure to serve as many Navajo people as possible, in the face of acute economic need, led the Navajo Land Boards to continue the policy of assigning small tracts (20-25 acres). In many instances, the older assignments had been fractionated by heirship and had become merely the place of residence of a number of related families; in other instances small farm plots were used only sporadically or partially by resident families whose primary source of livelihood lay in off-Reservation wage work. In theory, the assignments were subject to cancellation if beneficial use was not made for two consecutive years, but the low economic status of many assignees did not permit such a drastic step.

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[6] Published 1960 by Cornell University Press, Ithaca, New York.

[7] Op. Cit. p. 43.

It was not until the last two years of the decade of the 1950's that the Land Boards, working cooperatively with the Bureau of Indian Affairs, made a concerted effort to consolidate small, non-economic assignments through voluntary relinquishment by assignees and reassignment to neighbouring farmers. The Land Boards have adopted a more realistic land use policy in the past two years based on the premise that the land is the property of the Navajo Tribe. In its new status the Navajo Tribe becomes the landlord and lessor, entering into a lease arrangement with assignees, and requiring the payment of an annual rental based on the appraised value of the land. The assignee is given a 5-year, rent-free period in which to establish himself and bring the land into production. Newly developed land is assigned on the basis of 120-acre tracts, and is not subject to fractionation through heirship, but must be operated by a specific lessee as an economic unit. The 120-acre farms are capable of producing a net farm income of $4200-$5000 per year at present prices, although this income level is capable of substantial increase with expansion of the pasture raising of livestock, in lieu of hay and small grains, as a major farm crop.

At the close of the decade of the 1950's, eight Navajo families had been settled on 120-acre farms, and had been financed from the Revolving Credit fund with loans ranging from $18,000-$20,000 each. Pending repayment of the loan, the Bureau Branch of Credit, in collaboration with the Branch of Land Operations, assists farmers in the development of sound budgets and farm programs, thus permitting them to meet operating expenses from gross farm income.

The Farm Training Program: Although subsistence agriculture has long been an important aspect of traditional Navajo life, modern farming on a commercial basis is relatively new; the experience and techniques of the past are not adequate to meet modern requirements.

In the fall of 1955, 1,200 acres of irrigated land were completed on the Hogback Project in what is known as the Helium Unit. In lieu of assigning this acreage to applicants, the Navajo Tribe elected to utilize it for the operation of a farm training program designed to prepare future Navajo farmers for successful farm operation.

Accordingly, in 1956, a manager was employed, and necessary housing, farm buildings and equipment were procured. In 1957, the training program was launched. It has been supported since by the Tribe through annual appropriations of tribal funds, with an initial investment of $230,000. The minimal training period lasts for 24 months, and the program is presently capable of accommodating an enrollment of 18 families. The trainees are paid during the training period at the rate of $200 per month, out of which they must pay their family living expenses and save at least $25 per month. Married couples receive an allowance of $140 per month, plus $6.50 for each child, from the base salary of $200, and the remainder is withheld and placed in a savings account. It is held in trust for them by the Navajo Tribe until such time as they complete their training and receive a farm assignment.

During the training period those enrolled are assigned the responsibility for irrigating 30 to 50-acre segments of the training farm. The training program is individualized to the greatest extent possible, depending on the type of farm operation that individual trainees plan to enter. In view of the fact that many of the trainees and graduates from the program are interested in stockraising on their farm assignments, the training program is currently in the process of expansion to include the care of dairy cattle and the raising of chickens, hogs and beef.

The farm training program emphasizes training in the development of farm budgets, and graduates from the program are given assistance by the Bureau of Indian Affairs in this aspect of farm operation after they receive their assignments.

At the close of fiscal year 1960, fifteen Navajo farmers had completed the training program. Of this group, 8 had been settled on 120-acre assignments and 4 applications were held pending reopening of the Tribal Revolving Credit Program.

In addition to training which is directly related to farm operation, trainees and their wives attend adult education classes conducted by the Bureau of Indian Affairs and the Navajo Tribe. In fact, wives of trainees must successfully complete 75% of the required classes if they and their husbands are to graduate.

There were 16 trainees enrolled in the program at the end of fiscal year 1960.

The investment of tribal funds in the Farm Training Program through fiscal year 1960 is summarized in the table below:

	Tribal Appropriation	Value Crops Sold	Net Cost Of Training
1957	$230,000	$	$230,000
1958	160,900	3,000*	157,900
1959	108,630	6,000*	102,630
1960	116,355	33,000	83,355
Total	615,885	42,000	83,355

*During the first two years of operation a large part of the earnings from crop sales had to be used to re-work and re-level portions of the farm area.

The Farm Training Program is now well established and the Tribe looks forward to its use in future years as an effective tool for the preparation of Navajo farmers who will take assignments on the larger Navajo Project as acreages are progessively developed there.

The Navajo Project: More than three quarters of a century ago the recommendation was made that water from the San Juan River be used for the irrigation of Reservation land adjacent to the river and, after the turn of the century, this proposal received increasing attention. However, it was not until 1945 that the first field surveys were carried out with respect to this major project.

In 1951 a preliminary report was issued and, in January of 1955 the Feasibility Report was completed. In the interim, a proposal was made for the diversion of water from the San Juan to the Chama River to serve the growing city of Albuquerque and there ensued a series of negotiations with the State of New Mexico relative to the requirements of the State and those of the Tribe.

The Navajo Project was included as a participating project in Senate Bill 500, entitled "To authorize the Secretary of the Interior to Construct, Operate and Maintain the Colorado River Storage Project and Participating Projects," a bill which was passed by the 84th Congress.

On April 11, 1956, Public Law 485 (70 Stat. 105) was enacted authorizing the Secretary of the Interior to construct, operate and maintain the Colorado River Storage Project, and including authorization for the construction of Navajo Dam and Reservoir. However, the Act did not provide for the construction of the Navajo Irrigation Project.

On November 26, 1956, the New Mexico Interstate Stream Commission adopted a resolution requesting the Secretary of the Interior to revise the Feasibility Report on the Navajo and the San Juan-Chama Diversion projects, using the study size determined in 1953, but with the understanding that the Navajo Irrigation Project will not be authorized to exceed 115,000 acres, and that the initial phase of the San Juan-Chama Diversion will not exceed 110,000 acre feet of water per annum. The resolution of the New Mexico Interstate Stream Commission recommended a diversion of not to exceed 508,000 acre feet yearly for the Navajo Irrigation Project.

In March 1957, a report supplemental to the Navajo Irrigation Project Feasibility Report of March 1955, was prepared and submitted to the Commissioner, indicating a reduction of one third in the project construction costs partly as a result of the proposed land consolidation, with a benefit-cost ratio increased from 1 to 1.4.

On December 12, 1957, the Navajo Tribal Council agreed to the principle of sharing water shortages with all potential users of water to be stored in the Navajo Reservoir or diverted from the San Juan and its tributaries above the Navajo River.

The Navajo Tribe played an active part in the drafting of a bill to authorize the Navajo Irrigation and San Juan-Chama Projects, which was subsequently introduced in the Senate on April 21, 1958, and in the House on April 24. Hearings before the Senate Interior and Insular Affairs Committee were held on July 9-10, 1958.

A contract was awarded on June 26, 1958, to a combine of the Morrison-Knudsen, Henry J. Kaiser and F. and S. Construction Companies for the building of Navajo Dam, in a total amount of $22,822,624. The Navajo Reservoir will be the principal source of water to serve the Navajo Irrigation Project, which will be diverted directly from the reservoir into the main supply canal. Construction has proceeded rapidly and, although the scheduled completion date was March 1963, the project will no doubt be finished early in 1962.

The net acreage proposed for development embraces an area of 110,630 acres, including the off-Reservation lands to be acquired by the Tribe in the South San Juan Division. Of the irrigated land, 8,918 acres in the South San Juan Division and 70,359 acres in the Shiprock Division, would be served by gravity below the main canal and 25,882 acres would receive water from the pump canals in the Shiprock Division. An annual average diversion of about 508,000 acre feet of water from the San Juan River would be required for the project, representing an average annual stream depletion of about 252,000 acre feet, exclusive of reservoir losses.

On January 5, 1961, S. 107 was introduced by Senator Anderson, authorizing construction of the Navajo Indian Irrigation Project and the initial stage of the San Juan-Chama Diversion, and the Bill had the full support of Secretary of the Interior Stewart Udall who stated in a letter of recommendation dated March 14, 1961 to Senator Anderson, that "Authorization of an irrigation development such as the proposed Navajo Indian Irrigation Project would implement the recognition given in the Act of April 11, 1956, of the Nation's responsibility to help alleviate the severe economic distress among the Navajo people by providing them an opportunity to earn a respectable standard of living. It would enable an estimated 1,120 families to establish homes on irrigated farms and would create employment for an additional 2,240 families. The proposed project has the support of the Navajo Indian Tribe and an on-the-farm training program, financed with Tribal funds, is in operation to prepare members of the Tribe for irrigation farming."

The estimated construction cost is placed at about $135,000,000 on the basis of price levels obtaining in January 1958, while operation, maintenance and replacement costs would average about $481,000 annually on the basis of 1958 prices. S. 107 would authorize the appropriation of not to exceed $221,000,000 (based on 1958 cost indexes) for the construction of both projects.

In addition to irrigation construction the Long Range Act authorized the use of part of the money allocated for irrigation to carry out necessary studies and investigations with relation to the Navajo Project. During the period fiscal years 1951-1958, a total of $460,300 was used for these purposes.

As the Navajo Irrigation Project approaches realization there will be an urgent need to carry out certain studies and make certain determinations with a bearing on the future. One of the needs is an analysis of the present use pattern of the acreages that will be converted into agricultural lands or otherwise involved in the project. The land is presently occupied by an unknown Navajo population, and is used primarily for grazing purposes. It will be necessary to determine the number and characteristics of the people who will be displaced in order that plans for their rehabilitation can be developed. Secondly, the nature and scope of training requirements with respect to Navajos receiving farm assignments must be determined, and plans must be formulated to meet those requirements. The present Shiprock Boarding School, functioning wholly or in part as an Agricultural Training School, might be adapted to meet the training need, in conjunction with the Farm Training Program. Thirdly, careful consideration must be given to the problem of meeting the minimum credit requirements of Navajo farmers on the Project. Based on the financing needed by graduates of the Navajo Farm Training Enterprise who recently have received assignments of 120-acre tracts on the Hogback Project, farmers on the proposed Navajo Project will require between $18,000-$20,000 each, indicating a total need for as much as $25,000,000 to finance 1,200 farm families on the new Project if the total anticipated acreage is constructed. In addition, a portion of the 1,200-1,800 Navajo families who are expected to live indirectly from the agricultural project, through the operation of business enterprises, will require financing. Fourthly, past experience on the Colorado River, as well as in existing irrigation projects in the Reservation area, indicates the need for a strong Extension Service to assist irrigation farmers on the major project. Finally careful planning must be carried out with close Tribal participation to develop a policy and procedure governing land assignment on the proposed Project.

Irrigation Operation and Maintenance: During fiscal years 1956 and 1957 the Navajo Tribal Council budgeted $7,500 annually for the operation and maintenance of the small miscellaneous irrigation projects and, in January of 1958 the Tribe assumed the cost of operation and maintenance of all irrigation systems on the Reservation. To meet this cost, the Council appropriated $106,249 to cover the last half of fiscal year 1958 and $212,929 and $221,336 for fiscal years 1959 and 1960 respectively. A resolution of September 18, 1957 had committed the Navajo Tribe to support these projects with Tribal funds, a cost which had previously been borne by the Federal Government. It was intended that the operation and maintenance costs would be reimbursed to the Federal Government from charges assessed against the users, but a number of factors (uneconomically small assignments on irrigated lands, drouth, low economic level of farm families, etc.) did not permit collection of such charges, with the result that the accumulated total stood as a charge against the Navajo Tribe. The Bureau agreed that it would recommend to the Congress cancellation of outstanding operation and maintenance charges accrued to January 1, 1958, and would recommend the transfer of necessary maintenance equipment to the Navajo Tribe if the latter would accept the responsibility for operation and maintenance after that date. The resolution of September, 1957, accomplished this purpose insofar as the Navajo Tribe was concerned.

However, it was not until July 12, 1960, that the President approved Public Law 86-636—86th Congress, transferring "to the Navajo Tribe all of the right, title and interest of the United States to any irrigation project works, except the Reservoir Canyon and Moencopi Tuba project works, constructed or under construction by the United States within the Navajo Reservation prior to the date of approval of this Act, including machinery, equipment, tools, supplies, buildings, facilities, and improvements which are usable for the care, operation, and maintenance of such works and which are not needed for the continued efficient operation of the irrigation construction program within the Navajo Reservation."

In 1958, the Navajo Tribe owed a total of $1,706,801 in unpaid irrigation operation and maintenance charges; this indebtedness was cancelled on December 3, 1958 by the Assistant Secretary of the Interior.

Pursuant to the Act of July 12, 1960, the Navajo Tribe is preparing, in fiscal year 1962, to assume full responsibility for the operation and maintenance function.

Road and Trail Construction

Historical: Prior to the opening of the decade of the 1950's there were very few all-weather roads in the Navajo country. A paved highway led from Gallup, New Mexico north to Shiprock; a modern highway carried traffic north from Flagstaff through the western fringe of the Reservation; and Highway 66 touched the southern portion of the Reservation. The vast intervening areas were virtually roadless, or at best were served by graded roads of a type which were useless during seasons of heavy snow or rain. Many of the roads and trails in the Reservation hinterland were of fortuitous origin, created by Navajo family wagons which left their mark across the terrain, to be followed by other wagons until the trail thus produced came to be used as a road. These have not yet disappeared from the Navajo scene.

At an earlier period, the price of merchandise sold to Navajo consumers by the Reservation trading posts reflected the high cost of transporting it to the point of sale. The road situation generally, a decade ago, is poignantly depicted by the Navajo name applied to a rather steep hill in the old road to Ganado. It was known locally as "The Place Where the Mexicans Cry," a name which originated at a time when Mexican teamsters, transporting merchandise from Gallup, New Mexico to the Ganado Trading Post, literally broke down and wept as they placed their shoulders to the wagon wheel in a futile effort to help

The "improved" roads of a decade past were rarely superior to the one depicted above (between Crystal and Lukachukai).

their straining teams haul the heavily laden vehicles through the deep and sticky mire. There were and are many such places throughout the Reservation area to which comparable names could have been applied, but since 1950, their number has declined greatly on the main roadways traversing the Navajo country.

The Krug Report pointed to the fact that "a road construction program is fundamental to the rehabilitation of the Navajo Reservation. An adequate road system is a prerequisite to the development and conservation of Navajo resources, to the education of Navajo children, and to the improvement of Navajo health. The minimum road construction considered necessary consists of 636 miles of primary roads and 633 miles of secondary roads."

Road Construction During the Period 1950-1960: The Long Range Navajo-Hopi Rehabilitation Act, (P.L. 81-474) which became law in 1950, authorized the appropriation of $20,000,000 with which to carry out the Reservation road construction program recommended in the Krug Report of March 1948.

Primary attention was given to the building of an all-weather highway to traverse the Reservation from east to west, through Ganado to Tuba City, thus linking Highways 666 and 89. At the same time (1951-52) work was commenced on the Window Rock-Fort Defiance road, and on the access road to serve a new school then under construction at Hunters Point.

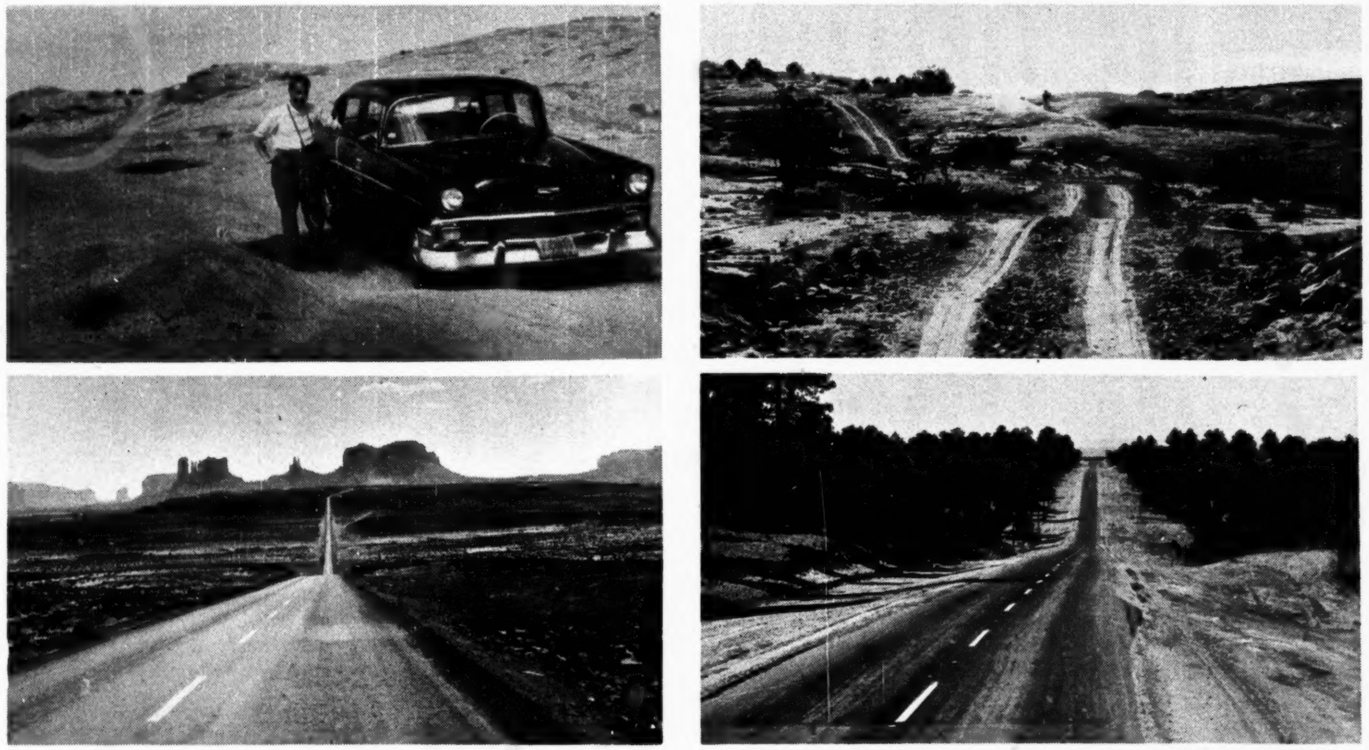
During the early part of the past decade, the uranium boom was at its height, the Reservation area was found to have many rich deposits, and in some areas the inadequate road system hampered mining operations. As a result, some road improvement was completed in the early 1950's with construction funds made available by the Atomic Energy Commission, including the road from Highway 666 to the uranium mines at Cove (45 miles); the road from Mexican Hat to the Monument Valley mines (19 miles), and that from Teec Nos Pos to Monument Valley, (a 58-mile stretch). In total, the Atomic Energy Commission, through the Bureau of Public Roads, provided funds for the construction of 102 miles of access road, of which 35 miles coincided with the Long Range Road System.

By 1955, about 62 miles of surfaced highway had been completed, in addition to 118 miles of gravel surface and 174 miles of grade construction, with appropriations totalling $6,865,000 for the period 1951-55, inclusive. During these years, construction was carried out by force account in conformity with requirements of the Long Range Act (Section 3) that "to the fullest extent possible, Indian workers on such projects shall receive on-the-job training in order to enable them to become qualified for more skilled employment." The road construction program, during the first half of the decade, provided a large amount of employment to Navajo workers. During 1953, 87 Navajo and Hopi workers were receiving on-the-job training under an apprenticeship program, while the total number of Indian workers ranged as high as 226 in a pay period. In October of 1953, there were 68 apprentices and trainees on the road projects and six Indian machine operators had completed their apprenticeship training and had been promoted to journeymen operators.

In 1955, the personal services limitation contained in the Appropriation Act for that year obliged conversion of the road construction program from force account to a contract basis, and this action brought the on-the-job training program to an abrupt end.

By 1958, a total of 371 miles of Reservation road had been improved, including approximately 100 miles of surfaced highway and 200 miles of gravel road, and a total of $13,870,000 had been made available during the period 1951-58 for roadbuilding purposes on the Reservation.

In 1956, a period of great industrial activity opened in the Four Corners area which, a year later, was well on its way to becoming a major oil field. Traffic quickly increased in the Reservation area, and a demand arose for construction of Routes 1 and 3 to State standards. It was proposed that they be turned



(Upper right) Roads such as this one (north of Inscription House) were the routes traversed by freight wagons and travelers everywhere on the Reservation a few decades ago. This road is still the only route linking Navajo Mountain with the outside world. (Lower Right) A new pavement replaced the previous dirt road linking Window Rock with Tuba City. It was largely completed during the first half of the decade of the 1950's. (Lower Left) A new road was completed in 1958 by the State of Utah, through the scenic Monument Valley to the Arizona State line, whence it was extended by the Bureau of Indian Affairs to Kayenta, joining Reservation Route 1. The sand trail through the Valley discouraged travel, and few tourists could enter this scenic area of Navajoland. (Upper Left) A portion of Route 1, not yet under construction in 1961, will traverse the bare rock depicted above, and located between Mexican Water and Dennihotso. Conditions such as these make road-building slow and costly.

over to the States for maintenance following their completion. During the summer of 1957 Senator Hayden visited the Reservation to discuss the roadbuilding program and, a year later, on November 26, 1957 Senators Anderson and Goldwater, and Congressmen Rhodes and Udall, held a hearing in Gallup, New Mexico. The hearing was concerned primarily with the proposed construction of Routes 1 and 3 to State standards. As a result, Senator Anderson and Representative Udall introduced Bills into the Senate and House respectively for amendment of the Long Range Act to authorize the appropriation of an additional $20,000,000 to thus bring the total authorization to $40,000,000. The Anderson-Udall Bill, as it came to be known, provided that $20,000,000 would be available "for contract authority for such construction and improvement of the roads designated as Route 1 and 3 on the Navajo and Hopi Reservations as may be necessary to bring the portion of such roads located in any State up to at least the secondary road standards in effect in such State, and in addition to any amounts expended on such roads under the $20,000,000 authorization provided under this clause prior to amendment."

Of the amount authorized by the Anderson-Udall Bill, a total of $12,000,000 had been programmed through fiscal year 1961.

The course of events since 1950 on the Navajo Reservation has brought industrial, public school and other developments, unforeseen at the time the Long Range Program was being planned, which require a minimum of 1,838 miles of primary and secondary road construction instead of 1,270 miles deemed sufficient in 1950.

At the close of fiscal year 1961, there were 291 miles of bituminous surfaced highway and 360 miles of gravel surface, to a total of 651 miles, and completion of additional segments on Route 1 was proceeding rapidly.

Upon their completion, Routes 1 and 3 will be accepted for maintenance by the States in which they lie (New Mexico and Arizona) and will thereafter be designated as State Highways.

In fiscal year 1961 eastward construction from Tuba City reached Kayenta, thus linking Route 1 with the recently completed paved highway through the Monument Valley, and construction proceeding westwardly from Shiprock will reach Walker Creek near Mexican Water, leaving only 42 miles to be completed on this route in 1962. Route 3 is completely paved from Highway 666 on the east to Highway 89 on the west, although bridge replacement and highway widening projects are still under way at several points.

During the period 1959-60, Chinle and Many Farms were linked by paved road with Route 3 near Ganado, and construction continues on this road to Round Rock, Rock Point and Lukachukai. In the near future the schools will be connected by a modern highway.

At the end of fiscal year 1960, the first 15 miles of highway on Route 4 had been paved from its juncture with Route 8, south of Chinle to Cottonwood school, and construction was proceeding toward Pinon, to thus provide access to seven schools located in the Chinle-Black Mountain area.

During 1959-60 two major bridges were built across the San Juan River, one near Montezuma Creek, Utah and the other near Farmington. These structures were partly financed by oil companies whose interests they will serve. Also, to provide access to Navajo children in the Torreon area, served by the Cuba Public school, nearly 10 miles of road was built to link Highway 44 with the Torreon area. The road construction involved a segment as far as Johnson's store, and the State of New Mexico has agreed to build the remaining section and to accept responsibility for maintenance of the entire route.

Although many miles of road remain to be built before total objectives are attained, the progress achieved in the decade of the 1950's has revolutionized life in many parts of the Reservation, bringing erstwhile remote and inaccessible communities and regions within easy access to travelers, tourists, school buses and industrial interests. The cost of operation of education and health programs has been reduced, the efficiency of service programs has increased, industrial development has been accelerated and facilitated, a new business potential has been created, and the level of Tribal income has grown enormously. At the same time increased ease of communication with the "outside world" has increased the tempo of cultural change on the Reservation so necessary if the Navajo people are to adapt themselves to new requirements and improve their social and economic lot. Completion of the major roadbuilding program in the years ahead will be a primary contributing factor in raising Reservation living standards to a level more closely commensurate with those of the surrounding area.

The Road Maintenance Program: In past years, funds allocated for the maintenance of Reservation roads have been woefully inadequate. In fiscal years 1959 and 1960 a total of $760,426 was available for this purpose and this amount was not sufficient to meet the need.

Completion of paved highways to State standards and subsequent transfer of maintenance responsibility to the appropriate

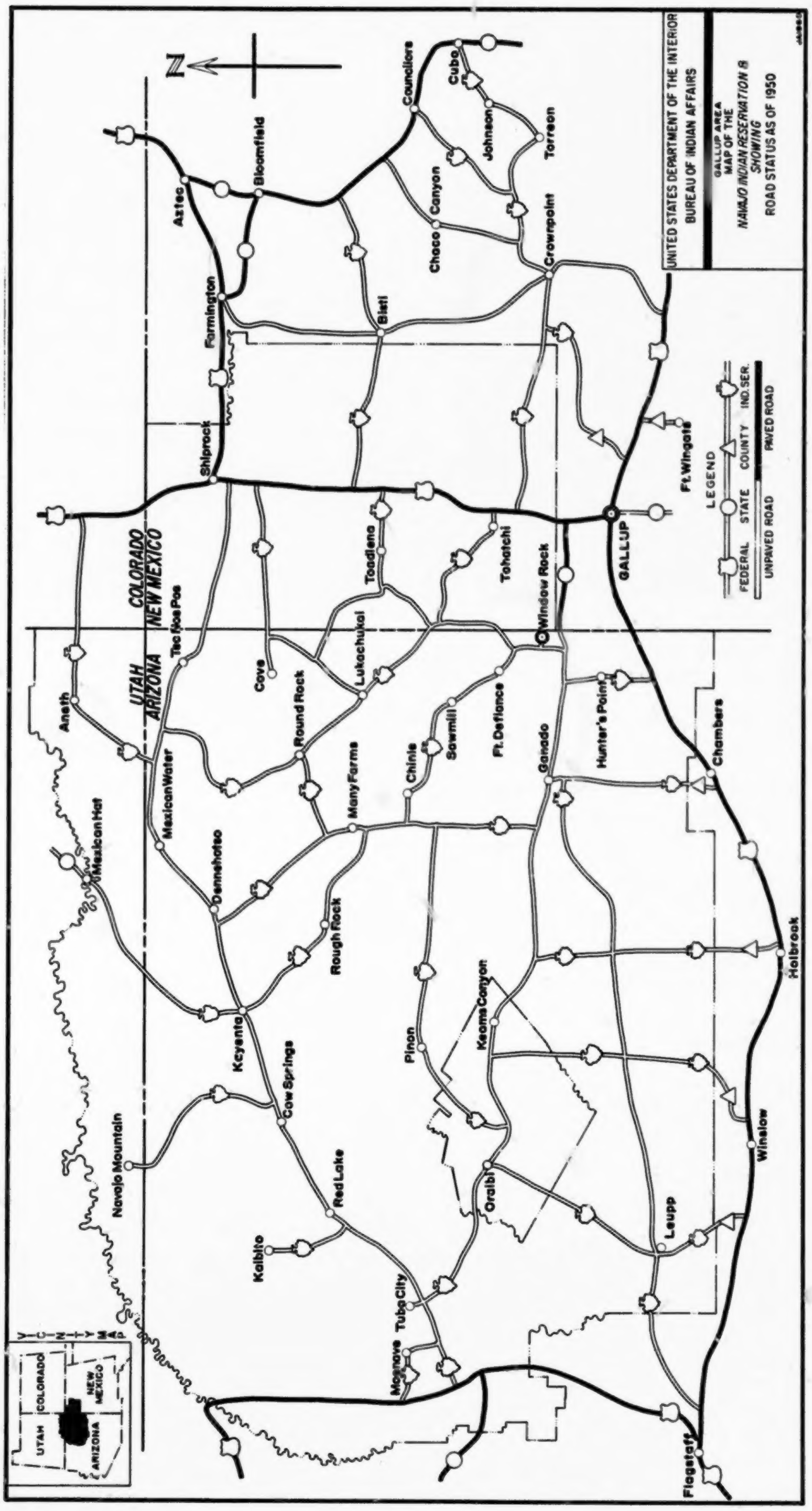
Improved roads will open up new vistas for the tourist and new economic opportunities for Reservation residents. The new Monument Valley Tribal Park offers many scenes such as that depicted above.

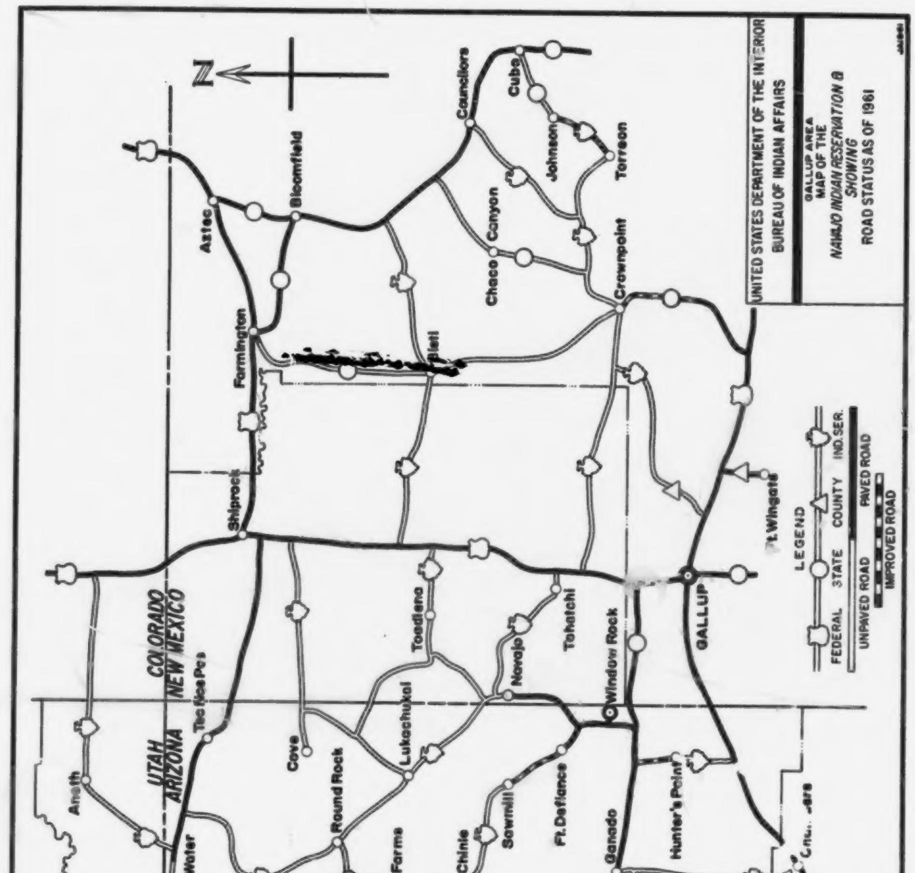
State Road Departments will permit use of available maintenance funds on school bus and other types of secondary roads required in the operation of Reservation programs, and thus permit a higher level of maintenance than was possible in past years.

STATUS OF WORK TO JUNE 30, 1960 (Navajo)

	Miles Grade Construction	Miles Base or Gravel Surface	Miles Bituminous Surface	Linear Feet of Bridge
ROUTE 3:				
New Mexico State Line to Highway 666	15.930**			77**
Tuba City to New Mexico State Line near Window Rock	107.358	107.358	107.358	772
Total Route 3	123.288	107.358	107.358	849
ROUTE 1:				
Tuba City to Shiprock	71.696	71.696	49.887	1,133
Total Route 1	71.696	71.696	49.887	1,133
OTHER PRIMARY ROUTES:				
Route 12 - Window Rock to Fort Defiance	6.662	6.662	6.662	
Route 7 - Fort Defiance to Chinle	1.648	14.503	1.648	296
Route 8 - Junction of Route 3 to Many Farms	44.564	44.564	44.564	
Total Other Primary	52.874	65.729	52.874	296
SECONDARY ROUTES:				
Route 12 - Hunters Point	4.506	4.506		127
Route 4 - Chinle to Pinon	15.371	15.371	15.371	93
Route 9 - Torreon to Cuba	9.765**	9.765**		
Route 17 - Many Farms to Round Rock				657
Route 18 - Kayenta to Gouldings	22.084	22.084	22.084	410
Route 35 - San Juan River (Aneth)	.964**	.964**		575**
Route 36 - San Juan River (Farmington)	.426	.426	.426	451
Total Secondary	53.116	53.116	37.881	2,313
ACCESS ROADS:				
Cove Road	45.000*	41.000*		
Mexican Water	30.000			
Monument Valley	19.000	19.000		
Lukachukai Saddle	8.000	8.000		
Total Access	102.000*	68.000*		
Totals	402.974	365.899	248.000	4,591
Completed on Long Range	309.315	322.170	248.000	3,939

* Includes 35 miles on Long Range Secondary System
** Not on Long Range System


UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
GALLUP AREA
MAP OF THE
NAVAJO INDIAN RESERVATION & SHOWING
ROAD STATUS AS OF 1950
N
LEGEND
FEDERAL
STATE
COUNTY
IND. SER.
UNPAVED ROAD
PAVED ROAD
UTAH
ARIZONA
COLORADO
NEW MEXICO
VICINITY MAP
Aztec
Bloomfield
Counselors
Cuba
Johnson
Torreon
Canyon
Choco
Crownpoint
Farmington
Bisti
Shiprock
Ft. Wingate
GALLUP
Tohatchi
Toadlena
Window Rock
Tec Nos Pos
Cove
Lukachukai
Round Rock
Aneth
Mexican Water
Many Farms
Chinle
Sawmill
Ft. Defiance
Ganado
Hunter's Point
Chambers
Mexican Hat
Dennehotso
Rough Rock
Holbrook
Kayenta
Keams Canyon
Pinon
Cow Springs
Navajo Mountain
Winslow
Red Lake
Oraibi
Leupp
Kaibito
Tuba City
Moenave
Flagstaff


UNITED STATES DEPARTMENT OF THE INTERIOR
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MAP OF THE
NAVAJO INDIAN RESERVATION &
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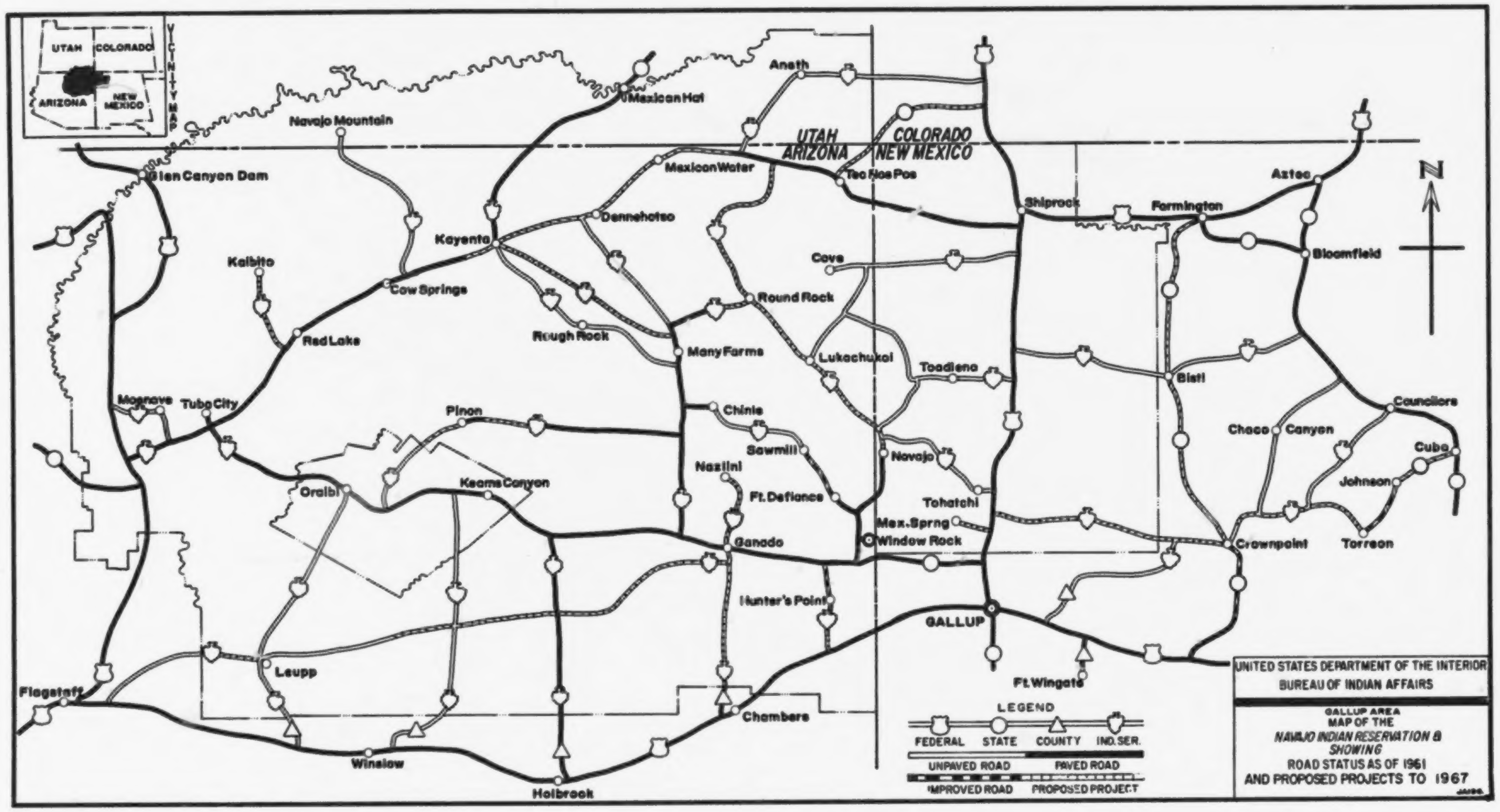
LEGEND
FEDERAL
STATE
COUNTY
IND. SER.
UNPAVED ROAD
PAVED ROAD
IMPROVED ROAD
N
UTAH
ARIZONA
COLORADO
NEW MEXICO
Aztec
Bloomfield
Farmington
Shiprock
Counselors
Cuba
Johnson
Torreon
Chaco Canyon
Crownpoint
Bell
Ft. Wingate
GALLUP
Window Rock
Tohatchi
Navajo
Toadlena
Lukachukai
Cove
Round Rock
Teec Nos Pos
Aneth
Mexican Water
Many Farms
Chinle
Sawmill
Ft. Defiance
Ganado
Hunter's Point
Mexican Hat
Dennehotso
Rough Rock
Kayenta
Cow Springs
Pinon
Keams Canyon
Holbrook
Winslow
Navajo Mountain
Red Lake
Kaibito
Oraibi
Leupp
Tuba City
Moenave
Glen Canyon Dam
Flagstaff
UTAH
COLORADO
ARIZONA
NEW MEXICO


UTAH
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LEGEND
FEDERAL
STATE
COUNTY
IND. SER.
UNPAVED ROAD
PAVED ROAD
IMPROVED ROAD
PROPOSED PROJECT
UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF INDIAN AFFAIRS
GALLUP AREA
MAP OF THE
NAVAJO INDIAN RESERVATION &
SHOWING
ROAD STATUS AS OF 1961
AND PROPOSED PROJECTS TO 1967

STATUS OF WORK TO JUNE 30, 1961 (Navajo)

	Miles Grade Construction	Miles Base or Gravel Surface	Miles Bituminous Surface	Linear Feet of Bridge
ROUTE 3:				
New Mexico State Line to Highway 666	15.930**			77**
Tuba City to New Mexico State Line near Window Rock	107.358	107.358	107.358	941
Total Route 3	123.288	107.358	107.358	1,018
ROUTE 1:				
Tuba City to Shiprock	104.641	104.641	82.832	1,133
Total Route 1	104.641	104.641	82.832	1,133
OTHER PRIMARY ROUTES:				
Route 12 - Window Rock to Navajo, New Mexico	18.021	18.021	18.021	240
Route 7 - Fort Defiance to Chinle	1.648	14.503	1.648	296
Route 8 - Junction of Route 3 to Many Farms	51.467	51.467	51.467	
Total Other Primary	71.136	83.991	71.136	536
SECONDARY ROUTES:				
Route 12 - Hunters Point	4.506	4.506		127
Route 4 - Chinle to Pinon	24.667	24.667	24.667	93
Route 9 - Torreon to Cuba	9.765**	9.765**		
Route 17 - Many Farms to Round Rock	3.134	3.134	3.134	911
Route 18 - Kayenta to Gouldings	22.084	22.084	22.084	410
Route 35 - San Juan River (Aneth)	.964**	.964**		575**
Route 36 - San Juan River (Farmington)	.426	.426	.426	451
Total Secondary	65.546	65.546	50.311	2,567
ACCESS ROADS:				
Cove Road	45.000*	41.000*		
Mexican Water	30.000			
Monument Valley	19.000	19.000		
Lukachukai Saddle	8.000	8.000		
Total Access	102.000*	68.000*		
Totals	466.611	429.536	311.637	5,254
Completed on Long Range	372.952	385.807	311.637	4,602

* Includes 35 miles on Long Range Secondary System
** Not on Long Range System

Soil and Moisture Conservation and Range Improvement Work

Present day problems relating to conservation of rangeland on the Navajo Reservation have their roots in the history of the Tribe to such a degree that they can be understood only against the background of the past.

HISTORICAL

The Early Navajo. The area of early Navajo occupancy in the Southwest appears to have been a region lying west of the Chama River in what is now New Mexico. Traditionally, the "original" Navajo Country is identified as Dinetah, and the tradition would seem to be borne out by the fact that this area, especially that portion lying in the region of Gobernador Canyon, in what is now New Mexico, abounds in archaic Navajo place names; also, it figures prominently in the legends; and it is an area where some of the earliest tree ring dates are found with regard to ancient hogan sites. Dates as early as 1491 are reported from this area.[1]

Following the arrival of the Apachean peoples in the American Southwest, about 1000 A. D., they, and especially that group which subsequently emerged as the Navajo, came into contact with the sedentary, agricultural Puebloan people. Previously dependent upon hunting, seed gathering and raiding for a livelihood, the Navajo began, at an early period, and as a result of Pueblo contacts, to adopt agriculture as a basic way of life and by 1630 the "Apaches de Nabahu," as they were called by the Spaniards, were described as an agricultural people.[2]

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[1] See "Recent Clues to Athapascan Prehistory in the Southwest," by Edw. T. Hall, Jr., American Anthropologist, Vol. 46.

In the course of time, the Navajos gradually expanded westward, and they must have been in contact with the Hopi on the west by 1622 if a tree ring date with regard to a hogan site on Black Mesa is correct. The expansion was no doubt a slow penetration of the vast area bounded roughly by the Rio Grande Pueblos and later the Spanish settlements to the east, Zuni to the south, the Hopi on the west and the San Juan River on the north.[3]

The Introduction of Livestock. Expansion apparently accelerated following the acquisition of horses in the 17th century, and the advent of sheep and goats during the same period led to rapid changes in the economy and the way of life of The People. From seed-gatherers, hunters and seasonal agriculturists, the Navajo changed with the introduction of livestock to depend primarily upon their herds for a living. This was supplemented by raiding and agriculture, although one of the most important aspects of the former was the fact that raiding represented a means for the acquisition of livestock by those members of the Tribe who had none, as well as a means for accelerating the growth of herds by persons who did not have enough.[4]

Before the advent of Anglo-Americans in 1846, there emerges a picture of the Navajo as a relatively small group of people[5] bound loosely together by a common language and culture, scattered over a vast area ringed on three sides by the Pueblos. Expanding population and the growing herds required additional grazing resources and the people continued to expand within this huge area, following the course of least resistance. Although they frequently found it necessary to shift residence between summer and winter range, as many continue to do to this day, the people were not nomadic historically, in the strict sense of the term — more accurately, they were *transhumant.*

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[2] See "Memorial of Fray Alonso de Benavides," 1630.

[3] In 1812, Pedro Bautista Pino states that "This nation is situated at a distance of 25 leagues [about 60 miles] from our borders between the pueblos of Moqui [Hopi], Zuni and the Capital [Santa Fe]." See "Noticias Historicas y Estadisticas de la Antigua Provincia del Nuevo Mexico," Publ. 1849 by Imprenta de Lara, Mexico, Pp. 85-86.

See also "Relation of Events in California and Mexico" by Fr. Zarate Salmeron.

[4] Historical accounts indicate that Navajo raids depleted the livestock holdings of the Spanish settlers to such an extent that, in 1775, it was necessary to import horses from Spain to make up the deficit. See "Historical Documents Relating to New Mexico, Nueva Viscaya, and Approaches Thereto," edited by Chas. W. Hackett.

[5] Perhaps 2000-4000 people in the middle of the 18th century. See "Navajo Culture Changes During Two Centuries," W. W. Hill, Smithsonian Miscellaneous Collections No. 100; Wash.

Estimated at between 7,000-14,000 in 1846. See "Correspondence of James S. Calhoun."

By 1846, James S. Calhoun estimated Navajo livestock holdings at "30,000 head of horned cattle, 500,000 sheep and 10,000 head of horses, mules and asses." Further, Mr. Calhoun stated that it was not rare "for one individual to possess 5,000-10,000 sheep and 400-500 head of other stock"[6] at this period.

The Early American Period. By the time Kearney marched into Santa Fe in 1846, stockraising had been the established way of life of the Navajo people for many generations — so long that its historic origin was lost in the mist of Navajo tradition, and so deeply rooted that mythological accounts were evolved to explain the origin of sheep, goats and horses.

Against this background, the traumatic effect on the Tribe of the "Scorched Earth Policy" associated with Kit Carson's military defeat of the Navajo in 1863 is easily understood. In the course of the campaign, great numbers of livestock were captured or destroyed by the troops, and the Navajos were quickly obliged to surrender.

Following the signing of the Treaty of 1868, the Tribe was permitted to return to a 3.5 million acre portion of the area — comprising perhaps 23 million acres — that they had previously used. There was no longer an unrestricted opportunity for expansion after 1868 because thereafter the Tribe was rapidly hemmed in on all sides by settlers, if not by the Reservation boundaries themselves.

Despite pressure by non-Navajos to retain and confine The People within the boundaries of the Treaty Reservation, many of them returned to the areas, outside the Reservation proper, where they had lived before the Fort Sumner episode and, during the period 1878 to 1935, the Reservation was periodically expanded to comprise ultimately an area of approximately 15,000,000 acres, thus giving legal status to many of those who were previously squatters on the Public Domain. Even so, the expansion of physical resources did not keep pace with population increase except for a brief period between 1882 and 1892 (see graph on facing page entitled "More and More Navajos Are Landless").

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[6] Letter to Medill. Correspondence of James S. Calhoun.

Following conclusion of the Treaty of 1868, the United States Government re-established the Navajo Tribe in a portion of its former homeland and issued, in November 1869, 30,000 sheep and 4,000 goats to members of the Tribe as breeding stock upon which to rebuild the traditional pastoral economy. The livestock holdings based on this breeding stock, in conjunction with an indeterminate amount of additional stock shared with the returned captives by relatives and clansmen who had escaped Kit Carson's troops,[7] increased rapidly and, only twelve years later, in 1880, Acting Navajo Agent F. T. Bennett reported[8] that many Navajos had become wealthy, counting their herds by the hundreds. In fact, he stated that members of the Tribe held about 60,000 horses, 500 mules, 1,000 burros, 500 head of horned cattle, 1,100,000 sheep and 400,000 goats. At the same time Mr. Bennett estimated the population of the Tribe at 15,500.

The Decline of the Pastoral Economy. From an economic standpoint, the Tribe appears to have enjoyed a period of comparative prosperity during the 1880's despite a multiplicity of problems relating to land and especially to the railroad which, at that time, was under construction through the Navajo area. However, by 1894, Agent Edwin H. Plummer made an urgent plea for more grazing land in a report to the Commissioner, stating that "The Reservation is not large enough or in condition to support the herds of the Navajos, and this has been made the subject of several reports by me. I fully appreciate the situation and have for a long time, but have not been able to make it clear to the authorities in Washington. * * * Only those in continual contact with these Indians know how impoverished they and their Reservation are, and what urgent necessity there is that something be done for them * * *."[9]

The first trading post was established on the Reservation in 1871, and the number grew in subsequent years as Navajo commerce expanded. In fact, in 1880, Agent Bennett stated that 1,100,000 pounds of wool had been marketed while an additional 100,000 pounds was retained for home use in the manufacture of blankets and clothing.[10] The advent of the trading post introduced a new factor into the traditional livestock economy, and one which accelerated cultural change for the Navajo people. The old barter system was altered to involve the development of a credit system under which Navajos received food, clothing, tools and other goods from outside sources in exchange for surplus wool and other products. Traders frequently advanced credit based on future wool and lamb crops, and themselves became the principal medium for cultural contact between the pastoral Navajos and the outside world. With the growth and development of commerce, the firm establishment of the credit-barter system through the trading posts, and the growing demand for goods from the outside world on the part of the Navajo, the livestock industry took on new importance as the hub around which Reservation life revolved.

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[7] Haskinnini Mesa in the Monument Valley is named after a headman called Hashke Neiniihii, "The one who distributes them in an angry way." This was a leader who, according to a traditional account, escaped Kit Carson, and who, throughout the period of Navajo captivity at Fort Sumner counseled his people to take good care of their livestock, because one day the captives would return penniless and would need help to re-establish their herds.

[8] Navajo Agency Letterbook — 1880.

[9] Navajo Agency Letterbook — 1894

Population grew from perhaps 9,000-10,000 in 1868 to steadily increasing proportions estimated at 15,500 in 1880,[11] 17,000 in 1883,[12] 22,455 in 1910,[13] and 39,064 in 1930.[14] Since 1930, the ethnic[15] population has grown to an estimated 88,000 or more.

The problem of expanding the grazing resources to accommodate the growing human and livestock population grew more and more acute after 1890, and although new lands were added periodically by Executive Order extension or Act of Congress, the additions did not keep abreast of the requirements for new living space. Erosion and range deterioration resulting from overuse had begun already in the 1880's and with each succeeding decade it became more and more severe.

Writing in July 1914,[16] Fr. Anselm Weber, O.F.M., St. Michaels, Arizona, made an eloquent plea for justice on the part of the Congress in determining the validity of Navajo, in contrast with non-Navajo, claims and requirements attaching to grazing lands adjacent to the Reservation. He pointed out that the Navajos possessed 1,781,900 sheep, 43,000 cattle, 87,000 horses, 3,795 mules and 5,440 burros, of which about one third were grazed outside the Reservation boundary. The remainder was carried on 11,807,793 acres of Reservation land. This was

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[10] Navajo Agency Letterbook — 1880

[11] Navajo Agency Letterbook — 1880

[12] Navajo Agency Letterbook — 1883

[13] Indian Population in the United States and Alaska — GPO — 1910.

[14] Based on Census of 1930

[15] See section on census and population. *Ethnic* is here used in the sense of *total tribal,* irrespective of place of residence.

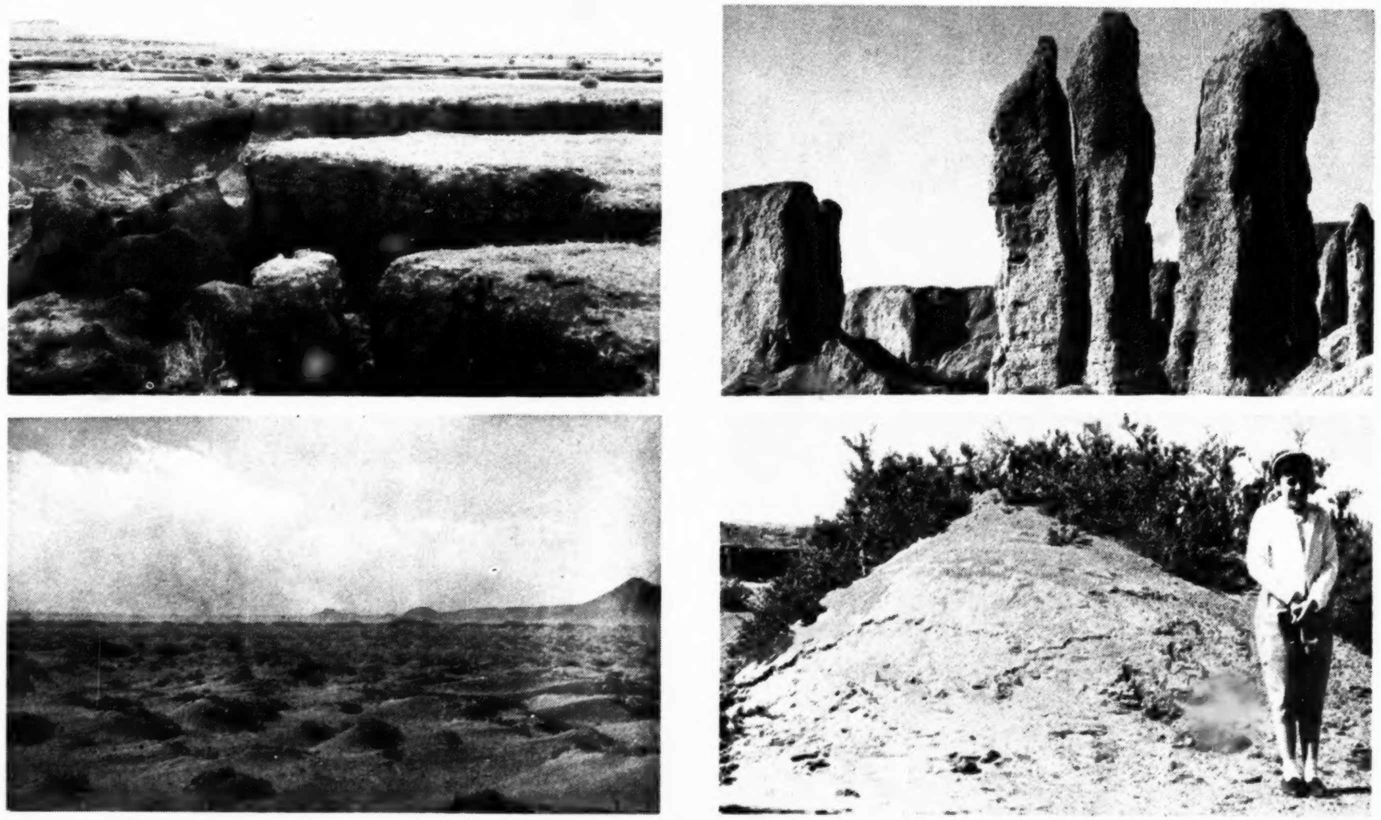
[16] "The Navajo Indians — A Statement of Facts," by Rev. Anselm Weber, O.F.M., Publ. St. Michaels, Arizona, July 25, 1914.

The Reservation Trading Post played a prime role as an intermediary, linking the Reservation people with the outside world, especially during the period between 1870 and the 1930's. It remains an important institution in the Navajo Country to the present day, despite the rapidly changing mode of life.

an enormous load for the available grazing resource.

Fr. Anselm observed that "The Navajo Reservation is stocked heavier and its range is more overgrazed and run down than the range in other parts of these States (New Mexico and Arizona)." He commented further to the effect that "Due to past overstocking of range during many years, the range is exceedingly overgrazed throughout the portion of the Zuni National Forest included within the Navajo and Zuni reservations. As a result, the soil is eroding badly in many places and the sheep belonging to the Indians make a scant living. Over considerable areas in the eastern division of the Navajo district very little plant life is left except sagebrush and scrub juniper and pinon. The former heavy stand of grama grass over much of this region is nearly extinct."

The Treaty of 1868 had provided for assignments of 160 acre tracts on the Reservation to individual Navajo families and, as an aspect of the competition between Indian and non-Indian stockmen, political pressure was brought to bear in 1914 for carrying out the authorized assignments and declaring the resultant "surplus" land open to non-Indian settlement and use. It was this movement that Fr. Anselm attacked, pointing out that 160 acres could not possibly provide a livelihood for a Navajo family and their herds in any part of the Reservation.



(Lower Left) Erosion has reduced many areas of the Reservation to a desert, shrouded in choking clouds of blowing sand and dust during the spring months. (Upper Left) In some areas wind and water have cut deeply into the soil, destroying the range and making the land worthless for agricultural purposes. (Upper Right) In some instances, erosion has created deep ravines from the bottoms of which there stand towers and pinnacles of adobe. (Lower Right) Hummocks such as that depicted above give mute evidence of the former level of the ground before erosion tore away the surface soil.

At the same time, Commissioner Meritt told Congress that "While they (the Navajos) have great potential resources, they are really suffering much of the time for want of sufficient subsistence and clothing." These were difficult times, and although many recognized the growing problem precipitated by an expanding population almost exclusively dependent upon grazing for its livelihood, occupying an area of insufficient grazing resources, no one could find an effective avenue for attack on the basic problem.

The urgent need for constructive action designed to save from destruction the remaining grazing resources and the livestock economy of the Navajos gained momentum in the 1920's and was discussed with the Tribal Council in 1928. However, the body of factual data necessary for realistic analysis of the problem was lacking until, in 1930, William H. Zeh, an Indian Bureau Forester, was instructed to make a survey of range conditions on the Reservation, as a basis for a report to include recommendations for necessary improvements.

Stock Reduction and Range Conservation — A Turning Point in Navajo History. In a report dated December 23, 1930, Mr. Zeh described the depleted condition of large areas of the Navajo grazing land pointing, as others before him had pointed, to the fact that lack of stock water prevented proper livestock distribution, and urging that non-productive livestock be culled from the herds to thus make more forage available to productive animals. He described the widespread erosion that characterized the Reservation, especially around water holes, and urged corrective action. He estimated Navajo livestock holdings at 80,000 horses, 27,000 cattle, and 1,297,589 sheep and goats (of which total 29% were goats). On the basis of the 1930 Tribal census, Mr. Zeh estimated that, if the total livestock holdings were equally distributed, each Navajo person would have only 23 sheep and 9 goats. With wool at 17¢ per pound and lambs at 4-4½¢ per pound in 1930, individual income could not exceed $60 per capita. He stressed the need for an educational approach to livestock improvement, aimed both at the members of the older generation and at the young people.

However, it was not until 1933 that grazing surveys were begun, and with completion of these studies in 1935, it became evident that the Reservation range could not support more than about 500,000 sheep units, exclusive of the Hopi area. The range was found to be more than 100% overstocked, and the depressed lamb and wool market of the 1930's was rapidly increasing the surplus of stock on the range!

At this time a number of factors combined to set the stage for the stock reduction program of the 1930's and early 1940's, and to place in motion a social and economic revolution on the Reservation which continues to the present day. These factors include: (1) the availability of Federally appropriated money for public works purposes during the decade of the National Depression of the 1930's; (2) the institution of a federal policy aimed at the conservation of national resources; (3) the need, both from a conservation and from an economic standpoint, to alleviate poverty and wastage on the Navajo Reservation; and (4) an Indian Affairs policy dedicated to the reestablishment and protection of tribal land bases.

The Navajo economy in 1933 was especially delicate, in view of the fact that it was almost exclusively based on stock raising and agriculture. The people were poor and uneducated — totally unprepared to understand the nature of their problems or the solutions recommended. The proposal that the number of livestock be reduced was incomprehensible to a people who had known little more than stockraising as a way of life for more than two centuries. The Federal Government, cognizant of the need for soil conservation and stock water development in the Navajo Country, was prepared to spend millions of dollars to carry out the necessary program, but such an investment would be unjustifiable without the concomitant institution of proper range management. Unless the livestock numbers could be maintained within the carrying capacity of the grazing lands, the process of range deterioration would continue unabated, and money spent for the restoration and protection of these resources would be wasted. Yet, in the face of the existing economic situation, it was essential that the Federal Government be prepared to offer something as a substitute to the Navajo if the size of his herds were to be reduced.

The distribution of livestock in traditional, as in modern Navajo society, was never an even one. In historical times, Navajo society was described as one composed of classes indentified as "ricos" (wealthy ones) who had vast herds, an intermediate class owning modest numbers of livestock, and "pobres" (poor ones) who owned little or no livestock, and who worked as herders for the larger owners. The latter constituted a significant proportion of the population and one which was especially vulnerable in any social or economic upheaval.

Against this background of events and circumstances, Commissioner John Collier held his first meeting with the Navajo Tribal Council in July of 1933, at Fort Wingate, New Mexico. At this meeting, range problems were discussed and the Council gave unanimous approval to the proposed establishment of an experimental demonstration area at Mexican Springs by the Soil Conservation Service.

Later, in a Council meeting called in November of the same year, at Tuba City, the Commissioner and his associates laid their general program before the Tribal representatives. Emergency conservation work had already begun on the Reservation and adverse economic conditions had led nearly all employable Navajos to seek work. At this meeting, the proposed reduction of Reservation livestock was clearly explained and it was recommended that: (1) the Council adopt a resolution sanctioning such a reduction program; (2) that an attempt be made to secure additional grazing lands for the Tribe; (3) that the soil conservation program be executed on a broad front; (4) that the emergency conservation work already under way be continued and (5) that an educational program, involving construction of about 50 day schools, be launched. The expenditures of Federal funds involved in the prosecution of these programs were designed to compensate for losses in livestock holdings through the reduction program. It was explained to the Council that wages would compensate adequately for losses sustained by individual stockraisers, and that improvements in breeding practices would increase the income from the livestock remaining on the Reservation.

Arrangements were made with the Relief Administration for the purchase of 100,000 head of Navajo sheep immediately after the meeting at Tuba City in November, 1933, at \$1-\$1.50 per head for ewes, and \$2.25-\$3.00 per head for wethers. Chairman Chee Dodge recommended that a premium price be allowed for the purchase of good breeding ewes because at the price offered, Navajo stockmen would sell only cull animals. However, the price had been set by the Relief Administration, and no such premium was possible.

Quotas were established for the several Navajo jurisdictions providing for the purchase of 20,000 head in the Northern Agency jurisdiction; 32,000 in the Southern; 15,000 in the Eastern; 15,000 in the Western; 10,000 in the Hopi and 8,000 in the Leupp Agency. No firm determination had been made previously by the Council as to whether the 100,000 head of sheep should be relinquished entirely by large owners; the matter was left for local determination. As a result, the large owners flatly refused to bear the brunt of the reduction. In the Western Agency jurisdiction, a compromise was reached by Navajo leaders requiring that every stockowner sell 10% of his sheep, and that of this number 75% should be ewes and the remainder wethers.

This compromise came to be generally accepted over the Reservation, since the large stockowners argued that it was the small owner who was profiting most in wages received from employment on Reservation projects, and they were unwilling to bear the burden of stock reduction alone. At the same time the Navajo women were especially sharp in expressing their resentment at the action of the Council, committing them as it did to sell livestock to the Government.

This first attempt at reduction was a failure. Its enforcement was left in the hands of the Council, and it succeeded only in taking good stock from small owners who could ill-afford the loss, while the large owners relinquished only their culls. By providing a market for cull stock, the action of the Government permitted the large stockowner to maintain his herds at the highest possible productive level.

The Navajo people began to view the program of the Government with alarm and suspicion, seeing in its operation a threat to their survival. They could not comprehend the objectives of the program, and could not equate money received from wagework with livestock to constitute wealth and security. Livestock was the traditional measure of wealth, not money.

During the winter of 1933-34, 90,000 sheep were bought — 90% of the quota of 100,000 head — and in March 1934, the Council again convened, this time at Fort Defiance. There the Navajo representatives were advised that further livestock reduction would be necessary. The Council members were caught in a dilemma of major proportions. They realized that the measures proposed by the Department of the Interior were urgently necessary in the interest of saving the Reservation grazing resources, but at the same time the alarm, suspicion and unrest of the Navajo people promised severe criticism of the Council if it supported the Federal Government in carrying out the proposed program. It was at this time that many Navajos learned, indeed, that there was such an entity as the Tribal Council. Since it had never before affected their lives, many were unaware of its very existence. As a result, the Council members declined to adopt a proposed resolution providing for goat reduction without first consulting with their constituents and without leaving development of procedure for such reduction to decision by the Navajo people.

In April of 1934 a meeting of the Council was held at Crownpoint, at which time agreement was reached to the effect that 150,000 goats would be sold from Navajo herds on the basis of a procedure to be elaborated by the Bureau of Indian Affairs at a Washington level.

Subsequently, in July, 1934, the Council convened at Keams Canyon and the Navajo representatives were apprised of the fact that Federal funds were available from the Relief Administration to finance the purchase of 150,000 goats and 50,000 sheep. The Navajos had agreed to the sale of 150,000 goats, but the sale of 50,000 sheep was optional. The agreement had been made by the Council, but not even this body foresaw the violent reaction which it was destined to spark throughout the Reservation area, especially on the part of Navajo women. As finally agreed, Navajos were committed to sell 50% of their female goats to the Relief Administration at a price of $1.00 per head. It was planned that the goats would be delivered to the packing plants in small lots between September and December of 1934. Generally, the Navajos cooperated in the buying program, but since the goats were located at long distances from shipping points, and since range and weather conditions were unfavorable, it was impossible to complete delivery as planned. In view of these facts, permission was sought and received to allow the Navajos to slaughter as many of the goats as they could use. Others were shot and left to rot. In Navajo Canyon alone 3,500 head of goats were shot at one time.

The effect on The People was one of shock, a reaction stemming from a deep seated respect by the traditional Navajos of the right to existence shared by all life forms, in combination with an aversion to what appeared as wilful waste of the resources upon which they depended for a livelihood as symbolized by the goats.

However, the campaign resulted in the reduction of goats from 294,851 counted in 1934 to 146,507 in 1935, and the Navajos voluntarily sold 50,000 sheep.

In 1935, additional Federal money was secured for the purchase of sheep and goats, but in the absence of a definite agreement, only 13,314 head of goats and 13,866 sheep were sold aside from regular sales to traders. Between 1930 and 1935 the sheep and goat population was reduced from 1,297,589 to 944,910 — a total of 352,679 head — of which number 60.8% were goats and 28.9% were sheep (a few cattle, horses and other classes of livestock were apparently included in the total).[17]

In 1934, a policy began to take form, designed to place the brunt of stock reduction on the large owners and protect the small owner (persons holding 100 sheep units or less). In fact, it was proposed that an exemption limit be established, below

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[17] The foregoing account of events between 1933-35 was condensed from an unpublished report by Carl Beck, Acting Chief of Extension, Navajo Reservation — undated.

which no reduction would be required. This proposal was not generally popular with the large owners, nor with that segment of the Navajo population that owned no stock at all, and which comprised persons who were dependent upon the large owners.

To assist in carrying out the proposed program of range management, the establishment of range management districts was deemed essential in view of the vast area involved. Accordingly, in the spring of 1936, a number of such districts, comprising about 1,000,000 acres each, were tentatively laid out. These took into consideration all of the major factors involved in the Reservation range use pattern from the viewpoint of good management, including seasonable movements of livestock, natural barriers, drainages, social, political and economic considerations. A maximum limit system of livestock adjustment was developed, providing for a sliding scale reduction procedure to be carried out in each district. At the same time, Tribal organizations themselves — primarily the Council — were empowered by the Federal Government to adopt the necessary grazing regulations.

By a resolution of November 24, 1936, the Council appointed a committee charged with the responsibility for promulgating a set of Special Grazing Regulations for the Reservation and, on June 2, 1937, these were placed in effect, duly approved by the Tribal Committee.

The Decade of the 1940's. Livestock reduction had now become a burning issue on the Navajo Reservation, and opposition was rapidly reaching a climax throughout the Navajo Country. The first grazing permits were issued in 1940, based on livestock ownership as reflected in the 1937 livestock count, and early reduction of the herds to the carrying capacity (560,000 sheep units), as provided by the Grazing Regulations, became the objective of the Federal Government. However, in 1941, the Tribal Council petitioned for the issuance of special grazing permits to allow stockowners to retain a larger number of livestock than the total allowed under their regular permits. The 1937 Grazing Regulations carried a provision for temporary slowing down of the stock reduction program whenever conditions might warrant such action. In 1941, the reduction of Federal appropriations required for Reservation range development work, coupled with unusually heavy rainfall and a good market for wool and lambs, led to the issuance of special permits to stockowners in possession of regular permits who, continuously since 1937, had owned the number of livestock for which they sought the special temporary permits, and who disposed of all livestock above the special limit on or before the dates fixed for such action by the Superintendent. The special permits set a temporary limit of 350 sheep units for the year ending December 1, 1941.

In 1942, the special permits were extended until such time as the Commissioner might act to rescind them and those regular permit-holders who were not eligible for special permits were instructed to sell all excess livestock by December 1, 1942. If they did not comply they were informed that they would be held in trespass. The right of the Secretary of the Interior to enforce Grazing Regulations through the Federal Courts had been established in 1940. The United States Department of Justice upheld the right of the Secretary in this respect, and the United States District Court at Prescott handed down an order in the case of the *United States of America* v. *Jake Yellowman and Lucy Yellowman,* to the effect that the defendants remove certain excess stock from the Reservation range on or before September 15, 1940.

The special permits were issued in 1941 as requested and, pursuant to the terms of the subsequent amendment they remain effective to this day in view of the fact that they have never been rescinded by the Commissioner of Indian Affairs.

The war years following 1942 opened up new sources of livelihood to Navajos in the form of wage work on the railroads and in industry, and during that period the social and economic structure of Navajo society underwent important changes. The Reservation agricultural base ceased to figure as the principal source of livelihood for a majority of the population, becoming instead a source of supplemental income. However, and despite its declining importance in the total economy, stockraising remained — and remains to this day — a value in Navajo thinking, retaining its traditional position as the most desirable and acceptable way to make a living.

The Post War Period — The Decade of the 1950's. After World War II, the old struggle for relaxation of regulatory controls was resumed by the Tribe, the grazing problem was studied by Lee Muck, a representative of the Secretary of the Interior, and a "freeze order" was issued by the latter on June 16, 1948, placing in abeyance the punitive provisions of the Special Grazing Regulations with respect to trespass.

The course of events over the past 12 years has not led to final solution of this knotty problem, although some progress has been made. The slow course of general improvement in the economy of the Navajo people has prevented an earlier solution of the problem, since improvement in the over-all economy hinges to a great degree on the education of a backlog of Navajo children. Through education the economy can be effectively diversified and the pressure on the grazing resource can be reduced and finally brought into balance with the carrying capacity of the range. Since 1950, a decade of drouth, coupled with continued overgrazing, has accelerated damage to the grazing land, leaving many acres devoid of forage.

The course of events with respect to the Reservation grazing problem during the period 1948-60 is summarized below:[18]

(1) June 16, 1948. The Secretary of the Interior, acting on the recommendations of Lee Muck, stopped negotiability of grazing permits, and placed in abeyance the punitive provisions of the Special Grazing Regulations except those requiring dipping and branding of livestock. It was the intention of the Department of the Interior to encourage the Navajo people to take the initiative in revising the regulations to thus assure the establishment of a Tribal ordinance which would correct what the Navajo people considered as inequities and undesirable features of the old regulations, while at the same time meeting the requirements of the Department for institution of a sound system of range management. Also, it was the hope of the Department that the Tribe would make ample provision for administration of its own range management program.

(2) October 1, 1948. The Secretary of the Interior advised the Navajo leadership that revision of the grazing regulations should be completed by July 1, 1948.

(3) July 1, 1949. Although the subject of grazing regulations received wide discussion in the Tribal Council and at community meetings throughout the Reservation, no progress was made by the Tribe in the direction of necessary revision, and the deadline date for completion of this work was extended to April 1, 1950.

(4) July 21, 1949. The Secretarial instructions of June 16, 1948 were amended to permit the transfer of permits belonging to deceased persons, pursuant to judgments rendered in the Reservation courts, and certain punitive provisions were reestablished.

(5) April 1, 1950. In view of the fact that no final action had yet been taken toward development of a draft revision of the regulations, the deadline for completion was again extended, this time to April 1, 1951. A letter from the Commissioner of Indian Affairs, dated February 29, 1952, advised the Tribe that further extensions of the completion date could not be justified.

(6) April 24, 1952. The Navajo Tribal Council adopted resolution CA-30-52, requesting that the Secretary of the In-

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[18] Adapted from an excellent summary prepared by Mr. Paul Krause, Navajo Agency Range Conservationist.

terior (a) reestablish negotiability of grazing permits; (b) authorize the establishment of Tribal Grazing Committees in each District; (c) suspend all punitive provisions of the Special Regulations except those governing dipping and branding, and (d) withhold amendment of the grazing regulations until such time as the Navajo people might fully inform themselves of the points at issue and the recommendations for meeting these points as expressed by the Department and others.

(7) October 28, 1952. The Secretary of the Interior acted to (a) reestablish the negotiability of grazing permits, thus permitting their sale and purchase by Navajo stockmen; (b) all punitive provisions were suspended except those governing dipping and branding; (c) April 1, 1954 was established as the deadline for completion of the revision of the Special Grazing Regulations, and (d) the establishment of Tribal Grazing Committees was authorized.

(8) January 13, 1953. The Navajo Tribal Council adopted resolution CJ-6-53, authorizing the organization of the Grazing Committees and providing necessary funds for their support.

(9) February, 1953. The Advisory Committee of the Tribal Council developed and promulgated a handbook entitled "Duties and Responsibilities of Grazing Committees." This document established regulations to govern committee operation, and to govern negotiation of grazing permits. Following issuance of the handbook, Council Delegates were instructed to proceed with the selection of Grazing Committee members as provided in CJ-6-53. Numerous local meetings were held as a result of this action, and the Committees were activated.

(10) May 27-28, 1953. The Grazing Committee members met jointly with the Advisory Committee to receive instructions from the latter group relative to the details of their function, and for several months frequent local meetings were called to discuss grazing problems.

(11) January 4-5, 1954. The Grazing Committee members again met jointly with the Advisory Committee, this time to discuss the subject of revision of the Grazing Regulations. A Sub-Committee for Revision of the Grazing Regulations was established, composed of the Chairmen of each of the District Grazing Committees (16 persons) and the Advisory Committee. This Sub-Committee completed a draft of the proposed revision.

(12) March 29, 1954. The Advisory Committee adopted resolution ACM-14-54, recommending that the draft of the proposed revised Grazing Regulations be referred to the Council.

(13) June 9, 1954. With minor changes, the draft of proposed regulations was approved by the Council. (See Resolution CJ-22-54.)

(14) August 23, 1954. The Commissioner of Indian Affairs required reconsideration of five points relating to the draft of the proposed revision and these differences were subsequently resolved.

(15) March 18, 1955. The draft of the proposed Revised Grazing Regulations, as finally agreed upon by the Tribe and the Bureau of Indian Affairs, was submitted to the Secretary of Interior for review and comment.

(16) April 5, 1955. The Solicitor for the Department of the Interior recommended several modifications of the draft to meet Departmental objections and about a month later, on May 13, 1955, the Advisory Committee adopted ACM-18-55, approving the modifications as required. On June 14, 1955, the Solicitor for the Department expressed general approval of the revised draft and it was ready for resubmittal to the Council for final Tribal action.

(17) December 5, 1955. The Tribal Council studied the draft of revised regulations as it had emerged following general agreement between the Advisory Committee, the Solicitor and the Bureau of Indian Affairs.

(18) January 27, 1956. The Tribal Council, by a vote of 58-12, adopted resolution CJ-3-56, approving the Revised Grazing Regulations with minor changes and, on February 13, 1956, the draft was submitted to the Department for final approval.

(19) April 25, 1956. The Revised Navajo Grazing Regulations were approved by Acting Secretary of the Interior Clarence A. Davis and, on May 1, 1956, the ordinance was published in the Federal Register.

Thus ended one important phase of the long standing controversy between the Navajo Tribe and the Federal Government, regarding the development of necessary controls to assure proper management of the Reservation rangelands. The next problem was the application and enforcement of the regulations which had been adopted, and it was the desire of the Federal Government to lead the Tribe to accomplish this objective for itself rather than impose enforcement from outside the Tribe.

During the period April 25, 1956 to January 8, 1957, various meetings were held at Window Rock and elsewhere on the Reservation to explain the newly adopted regulations and to outline procedures for their application by Grazing Committees.

(20) April 2, 1957. In a letter to the Chairman of the Navajo Tribal Council, the General Superintendent of Navajo Agency

called attention to the fact that (a) all sections of the Navajo Grazing Regulations had become effective on April 25, 1956, except Section 72.13 (b) which required elimination of excess livestock by persons holding such, by April 25, 1957; (b) much of the responsibility for application and enforcement of the new regulations lay with the Tribe; (c) many stockmen still had livestock in excess of their permitted numbers, and many Reservation Districts remained overstocked, and (d) continued over-use of the range, coupled with drouth conditions had resulted in serious damage to the grazing lands.

(21) April 18, 1957. The Chairman of the Navajo Tribal Council responded to the letter from the General Superintendent to the effect that (a) the development of the Grazing Regulations had extended over a long period of time transcending the existence of the incumbent Tribal Council of 1957; (b) promises had been made by the Federal Government that there would be no further forced stock reduction program; (c) the Tribal administration could not require a reduction in the number of Navajo livestock until such time as a program of voluntary cooperation might be worked out withthe Navajo people; (d) considerable sentiment attaches to the possession of livestock in the mind of many Navajo people; (e) there might be a need for readjustment permits between districts to eliminate seeming inequities as reflected in the fact that the numbers of livestock permitted in some districts exceeds the amount permitted in others, and (f) a joint meeting of Grazing Committee members with the Advisory Committee would be called for the purpose of discussing administration of the Grazing Regulations.

(22) April 30, 1957. A three-day meeting of those in reference above was called at Window Rock, and discussion revolved around the provision incorporated in section 72.13 (b) of the Grazing Regulations, which allowed one year (to April 25, 1957) for the completion of livestock adjustments necessary to bring total holdings down to the actual permitted numbers. As a result of this meeting, a resolution was adopted petitioning the Tribal Council to request that the Secretary of the Interior extend this requirement to April 25, 1958.

(23) May 28, 1957. The Council adopted resolution CM-57-57 requesting extension of the deadline for adjustment of livestock numbers to April 25, 1958, in conformity with the petition in reference in (22) above.

(24) June 10, 1957. The General Superintendent transmitted CM-57-57 with a recommendation that the requested extension of time be granted.

(25) June 10, 1957 to September 23, 1957. During this

period a Grazing Handbook was issued by the Tribe, and various meetings of the Grazing Committee members and others took place at which some discussion was given to the development of ways and means through which to secure compliance with the Grazing Regulations by Reservation stockmen.

(26) September 23, 1957. The General Superintendent directed a letter to the Chairman of the Tribal Council reviewing the factors involved in the development of Resolution CM-57-57, and especially of a commitment for a quarterly progress report to the Secretary by the Tribal Council. In view of the relatively heavy rainfall and good forage production in 1957, the Superintendent expressed the belief that stockmen might take advantage of the opportunity to comply with CM-57-57 by selling surplus stock at a good price.

(27) October 28, 1957. The extension of time to April 25, 1958 as the deadline for adjustment of livestock to the permitted numbers as requested in CM-57-57 was granted by the Secretary of the Interior.

(28) January 10, 1958. In a letter addressed to the Chairman, Navajo Tribal Council, the General Superintendent requested that the Tribe submit a progress report covering efforts to secure compliance of Navajo stockmen with the requirements for adjustment of livestock to the permitted numbers, as provided by Resolution CM-57-57.

(29) January 16, 1958. In a memorandum to the Assistant General Superintendent in charge of Resources, the General Superintendent called for joint study by the Tribe and the Agency aimed at analysis of the human social and economic problems of the Reservation which demanded solution if compliance with the Grazing Regulations was to be realized, especially with reference to the problem of reducing livestock numbers to the carrying capacity.

(30) March 5, 1958. A Council resolution of February 20, 1958 requesting a further extension of time and providing for an economic study to determine the manner and extent of Navajo dependency on livestock was submitted to the Central Office by the General Superintendent with a recommendation for approval.

(31) March 12, 1958. A progress report submitted by the Tribe reflected the fact that six districts were overstocked, but that 2,152 surplus horses had been sold the preceding year and home consumption of livestock was above normal as a result of reduced employment opportunities for Navajo labor. Tribal officials were reluctant to require adjustment of livestock to the carrying capacity because of the uncertain employment

situation at the time.

(32) June 27, 1958. The Vice Chairman of the Tribal Council made a personal plea to the Secretary of the Interior for an extension of time, and the Tribal petition was granted, thus extending the deadline to April 25, 1959. This was established as the effective date for compliance with the regulations, and the change was published in the Federal Register on February 17, 1959 as a formal amendment of the Grazing Regulations.

(33) November, 1958. A representative of the United States Department of Agriculture reported that a third of the Reservation was in critical condition as a result of the drouth, and recommended the distribution of 20,000,000 lbs. of feed grain to save subsistence herds from starvation. A similar program, involving 1,648 carloads of feed grain had been carried out in 1956-57.

(34) June 15, 1959. In a report by Navajo Agency to the Tribal Council, the Tribal leaders were advised that a survey of Reservation grazing conditions disclosed the fact that, on two million acres, there was virtually no forage; on 9.3 million acres forage was scarce; on 3.15 million acres there was adequate feed, and on about a half million acres feed was abundant. Less than one half of the livestock was reported to be in good condition.

(35) October, 1960. Continuing drouth conditions resulted in a third request by the Tribe to the Department of Agriculture for emergency livestock feed.

The decade of the 1950's, characterized by serious drouth conditions, has spurred water development throughout the Navajo Country in an effort to open previously unused forage areas to grazing. In fact, during the period 1950-60, over $6.5 million have been spent for this purpose (including increasing well maintenance costs) by the Tribe and the Bureau of Indian Affairs, each contributing about half of the total amount invested through fiscal year 1959, after which no further federally appropriated money was available. Range water development, designed to open up waterless areas of grazing land, permitting better distribution of the Reservation livestock and reducing the concentration of stock around waterholes, was an important aspect of the conservation program from the beginning, as evidenced by the recommendations made in the Zeh report of 1930. However, the range water development effort has far exceeded those recommendations in its scope and cost, a circumstance which owes to the drouth in an immediate sense, but one which has far deeper implications. Non-Indian stockraisers customarily reduce their livestock holdings during periods of low forage production, increasing them again as favorable conditions return. This solution is not acceptable to the Tribe, and perhaps not wholly feasible, on the Navajo Reservation due to the peculiar position of stockraising in the culture and economy of a significantly large segment of the people. In the light of this circumstance, the accelerated water development program can be viewed in part as an aspect of the rear guard action begun in the 1930's and extending into the present, carried on by the older generation and aimed at retaining stockraising as the basis of the Reservation economy. In part, it is an aspect of changing times, in which regard it reflects health education programs aimed at the provision of better and safer sources of domestic water for Navajo families.

The water development program is treated in greater detail under a separate section.

With the steady decline in range forage production that has characterized the drouth period, crisis was averted in the winter of 1956-57 by the conduct of an emergency livestock grain feed program involving the delivery of 1,652 carloads of surplus grain by the Department of Agriculture to owners of subsistence herds on the Navajo Reservation. The Navajo Tribe paid the cost of transporting and distributing the grain. The emergency feed program was repeated in 1958 and 1959, and an additional program was carried out in 1960. The following table summarizes these efforts to save small herds on the Navajo Reservation:

Year	Lbs. of Grain	Carloads of Grain	Amount of Tribal Funds	Value of Grain	Sheep Units Fed	Cost Per Sheep Unit
1957	115,639,700	1,652	$1,426,359	4,460,391	660,274	$8.92
1958	12,074,160	175	265,088	467,225	253,245	2.89
1959	23,999,980	348	917,540	928,796	293,717	6.29
Total	151,713,840	2,175	$2,608,987	$5,856,412	1,207,236	$6.03*

*Average

In the summer of 1960, personnel of the Branch of Land Operations completed a study and analysis of range resource reports which disclosed the fact that (1) 676,000 acres of Reservation land formerly usable for grazing purposes has now been depleted; (2) 5,500,000 acres of rangeland has been severely overgrazed, and is in danger of depletion; (3) the Reservation carrying capacity, established at 512,000 sheep units in 1943, is presently estimated at not more than 387,000; (4) the voluntary livestock count in 1959 showed 539,323 sheep units on the Reservation range; and (5) the number of grazing permits has increased from 7,954 in 1955 to 8,390 in 1959. Likewise, during the decade of the 1950's, the number of goats on the Reservation has grown from 36,664 to 80,557. Actually, the 676,000 acres of depleted range represents a loss of about $5,000,000 worth of Tribal property, since most of the areas involved lie in regions of low rainfall, thus requiring application of a long range program if the acreage is to be restored to productive use, and actually the cost of the $8.4 million emergency feed program carried out since 1957 exceeds the sale value of the Reservation livestock. Obviously, however, the economic value of Navajo livestock cannot be measured wholly in terms of its market value, a fact which has been pointed out or implied in the foregoing review of the problem.

Although the Reservation range is seriously overgrazed in at least 8 of the 17 Land Management Districts, and although the number of livestock exceeds the total estimated range carrying capacity by nearly 33%, the degree and extent to which the Navajo people depend upon livestock has declined drastically during the past 20 years. For example, in 1915, Mr. Peter Paquette, Superintendent of the Southern Navajo Jurisdiction reported to the effect that 581 out of 2,400 families in his Agency Jurisdiction, or about 24%, owned no sheep. In 1960, about 8,600 out of an estimated 17,000 families, or slightly more than 50%, hold no grazing permits. As recently as 1940, 58.4% of all Reservation income derived from stockraising and agriculture, whereas in 1960 the value of this aspect of the economy probably does not exceed 10%. Again, in 1915, in the Southern Navajo Agency jurisdiction, 44.3% of the 1,819 families reported as owning *sheep,* owned more than 100 head, while in 1960, of 8,390 permit holders, only 20% owned more than 100 *sheep units* of stock. These figures are not entirely comparable, but if the total 1915 holdings could be converted into sheep units, the resultant percentages would probably not change greatly.

In 1915, the 11% of stockowners in the Southern Agency Jurisdiction, who possessed from 500 to 1,200 sheep or more, could readily employ those families who owned no stock, and who had no other source of livelihood; since 1940, those who own no stock or insufficient stock look to wagework on and off the Reservation for the support of their families.

Actually, an analysis of grazing permits in 1957 revealed the fact that 27% of the stockmen have 25 or less sheep units of stock, and of the total animals included in such small holdings, 70% were horses. Fifty-one percent of the permit holders owned 50 sheep units or less, and within this group 48% comprised horses. Thus, of all stockmen on the Reservation, 51% own not more than 50 sheep units, of which more than half the animals involved are horses, and the contribution of livestock to the economy of this large proportion of the permit holders is small or insignificant. Of all permit holders, only 20% own more than 100 sheep units, and if the average annual income value of a sheep unit of stock is placed at $10, it follows that only 20% of these families have an earning potential of $1,000 or more from stockraising. In fact, only 0.6% held permits for between 301-350 sheep units, with a potential earning capacity of about $3,000-$3,500 per year from stockraising. The industry has tended more and more in the direction of providing horses for draft purposes, a modest supply of meat for home consumption and a modest living to a few families in contrast with the pattern 25 years ago when most families were heavily dependent, directly or indirectly, on stockraising.

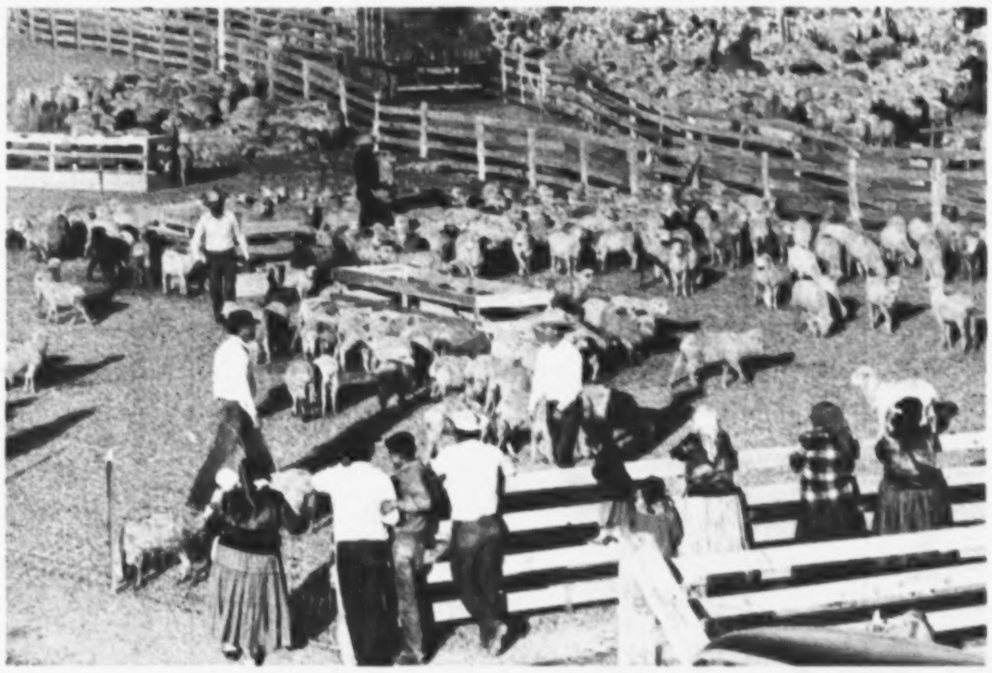
For a time, people in the drouth stricken sectors of the Reservation entertained the hope that climatic conditions might change for the better, and that a wet year might restore the forage and obviate the need to haul stockwater or feed grain to keep their herds alive. However, the summer of 1960 was exceptionally dry in most areas of the Navajo Country and, by autumn of that year, many stockraisers and Grazing Committee members were convinced of the necessity to develop a new and different approach to the problem that confronted them. Accordingly, during the period September 26-28, 1960, the District Grazing Committees held a joint meeting with Tribal and Agency personnel at Window Rock at which the Agency Range Conservationist and other technicians of the Branch of Land Operations described range and livestock conditions in detail. The problem was made even more acute in the fall of 1960 by the fact that there was no market for many of the lambs, stunted as they were from malnutrition during the preceding summer. At the same meeting, the Director of the Tribal Division of Resources, himself a member of the Tribe, exhorted his fellow Navajos to face facts and take the action necessary to establish a sound range and livestock management program based on the grazing regulations adopted by the Council in 1956. He read and supported a memorandum from the General Superintendent pointing to the fact that, of 539,000 sheep units of stock counted in 1959, 200,000 units, or nearly 40%, comprised goats, horses and other non-productive classes of livestock. He recommended that the Tribe establish a collective wool marketing program to thus bring better returns to wool producers than they can presently obtain through the traditional system of selling their wool crop in small lots to the Reservation traders.

Following on the heels of the Joint Meeting of District Grazing Committee members, the Tribal Council was convened, on November 4, 1960, for a special one-day session. At this meeting, the Tribal Government appropriated $597,250 with which to finance a Tribal emergency livestock purchase program designed to create a market for lambs and other stock and thus relieve the continued burden on the range caused by these surplus animals which normally would have been sold in the fall. Permission had been received from the Government Agencies involved to utilize feed grain received under the 1960 emergency feed program for the sustenance of lambs and other stock acquired by the Tribe under the emergency livestock feeding program.

As a result of this effort, a market was developed for 13,480 head of lambs, and in addition 15,070 mature sheep, 8,622 mature goats, 4,079 kid goats, and 3,480 hides were purchased by the Tribe — a total of 44,731 sheep units of livestock removed from the Reservation range. Actually, the number removed more closely approximates 50,000 sheep units, because death losses of livestock in transit or in the pens, and animals resold to individual Navajos for slaughter are not counted in the 44,731 reflecting the livestock sold. The total net cost of the program was placed at $355,145.

Nonetheless, subsistence stockraising remains an important feature of the Reservation economic scene. It is the hope of farsighted members of the Tribe, as well as that of Bureau technicians, that stockraising, like irrigation farming, may someday soon be placed on a commercial rather than on a subsistence basis. This shift would mean a small number of stockmen with larger individual livestock holdings, using the Tribal range on the basis of an annual rental or use fee payable to the Tribe.

The course of events since the 1930's emphasizes the fact that cultural change is usually a gradual process, especially where necessary adaptation requires changes which are revolutionary in their scope and effect. The spread of education and the broadening of work experience among the Navajo people will some day soon ring down the final curtain on the traditional economy of the Tribe, but the people must be trained and other sources of livelihood must enter the scene to supplant stockraising before the people will voluntarily exchange their pastoral life for one based on new and different pursuits — unless, of course, continued drouth forces the issue through further and even more widespread ruin of the grazing resources, thus accelerating the process of adaptive change. Seasonal labor, tribally sponsored Reservation public works and construction programs, the present livestock industry, and other economic media currently available to a large proportion of the Tribal population are all limited in their scope, their duration and their adequacy to provide a livelihood at acceptable standards to the Navajo people.



The Navajo Tribal Emergency Livestock Purchasing Program of 1961 removed from the Reservation range a total of 31,120 sheep units of stock for which there was no normal market in the fall of 1960.

RESERVATION LIVESTOCK CENSUS(1)
(Includes Navajo and Hopi except as indicated)

Year	Mature Sheep	Mature Goats	Mature Cattle	Mature Horses	Total Mature Sheep Units	Total Lambs
1928 (3)	1,375,000		37,500	67,500	1,862,500	
1930	574,821	186,768	25,000	50,000	1,111,589	349,237
1931	631,427	196,945	25,000	50,000	1,178,372	345,242
1932	575,913	173,585	21,000	44,000	1,053,498	257,148
1933	544,726	164,999	20,000	42,000	999,725	277,772
1934	502,619	147,427	19,000	40,000	926,046	289,178
1935	548,579	92,222	19,020	40,270	918,231	252,554
1936	459,285	73,600	12,557	32,007	711,148	281,342
1937	391,103	57,819	18,053	39,835	720,309	295,802
1940 (4)	356,791	57,113	13,045	31,100	621,584	302,674
1941	433,733	72,018				
1951 (4)	234,619	39,014	9,205	27,439	449,808	146,071
1952	220,476	41,997	8,847	27,802	433,983	162,739
1953	233,109	45,196	9,997	27,309	454,838	177,230
1954	252,261	52,678	11,149	26,972	484,395	173,393
1955	257,042	55,945	12,583	26,890(2)	497,769	172,408
1956 (4)	266,185	62,509	13,673	25,783(2)	515,965	180,268
1957 (4)	275,515	71,130	14,594	23,920	524,621	182,063
1958 (4)	287,785	77,000	14,590	23,051	538,400	212,623
1959 (4)	291,804	80,557	14,897	22,067	539,323	188,581

(1) From records on file at Navajo Agency. Older figures are estimates.
(2) Includes 768 yearling colts counted as mature horses.
(3) Includes lambs, kids and other immature stock, as well as mature goats.
(4) Excludes Hopi, includes only Navajo Reservation proper.

NAVAJO RESERVATION GENERAL GRAZING SUMMARY (1)

1959 Permit and Use Data

District	1943 Carrying Capacity Sheep Units	1959 Permitted Number Sheep Units	1959 Stocking Sheep Units Yearlong	% Over or Under Carrying Capacity	Number Permittees 1959	Largest Permits Originally Issued in Sheep Units
1	34,221	33,293	36,450	+ 7	428	225
2	20,506	20,857	27,964	+36	300	161
3	47,288	49,107	39,460	-17	548	280
4*	23,372	28,636*	43,304	+85	550	72
5	26,351	28,813	23,198	-12	303	280
7	49,727	53,967	42,461	-15	766	237
8	29,978	29,996	40,006	+33	451	154
9*	21,018	23,854*	39,112	+86	408	83
10	33,717	32,174	33,036	- 2	710	153
11	17,261	17,161	16,881	- 2	382	105
12*	52,385	54,205*	55,611	+ 6	1,006	104
13	16,703	14,783	12,793	-23	192	200
14*	25,321	28,690*	31,783	+26	582	61
15 On*	7,171	9,351*	6,999	- 2	117	88
17	74,895	69,803	63,012	-16	949	275
18	33,008	41,379	27,253	-17	698	238
TOTAL	512,922	536,069	539,323	+ 5	8,390	

* Some supplemental Grazing Permits still in effect.

(1) From a statistical study of Reservation livestock records by Paul A. Krause, Navajo Agency Branch of Land Operations.

NAVAJO LIVESTOCK INDUSTRY - LIVESTOCK BY CLASSES 1959(1)

Dist. No.	Mature Sheep	Lambs	Mature Goats	Kids	Mature Cattle	Calves	Mature Horses	Colts
1	22,154	15,453	3,863	2,951	932	547	1,341	162
2	15,767	10,078	4,035	2,999	618	291	1,138	80
3	21,364	13,291	4,021	2,912	1,520	891	1,599	182
4	21,921	13,115	7,430	5,343	1,172	555	1,853	117
5	12,322	9,217	2,226	2,113	1,110	674	842	51
7	23,113	15,088	5,897	4,488	834	460	2,023	143
8	22,567	11,132	7,663	4,936	934	465	1,208	106
9	18,827	10,865	9,453	6,455	973	504	1,388	122
10	16,589	10,480	3,955	2,840	953	416	1,736	105
11	7,298	5,365	2,241	2,167	688	359	918	89
12	29,841	19,307	8,653	6,885	1,358	727	2,337	167
13	8,780	6,155	1,482	1,269	219	110	331	19
14	13,548	8,156	6,091	4,104	1,460	752	1,347	67
15 (on)	3,888	2,919	1,548	1,269	389	224	324	24
17	37,180	25,900	7,261	6,349	862	458	2,502	194
18	16,645	12,060	4,738	3,885	875	482	1,180	82
TOTAL	291,804	188,581	80,557	60,965	14,897	7,915	22,067	1,710

(1) From a statistical study of Reservation Livestock records by Paul A. Krause, Navajo Agency Branch of Land Operations.

Range Management: An important aspect of the Reservation conservation program is the attainment of range management based on sustained yield principles. Overgrazing, drouth and other factors have combined across the years to damage or destroy large areas of rangeland.

An inventory of soils and range resources within the several ecological zones on the Reservation was begun in January, 1959. This study is expected to be complete within a five year period, and will provide detailed, basic information relative to soil types,

TOTAL NAVAJO-OWNED STOCK ON RESERVATION - COMPARATIVE BY YEAR AND DISTRICT; NUMBER AND PERCENTAGE SHEEP UNITS OVER OR UNDER CARRYING CAPACITY 1952-1959 (1)

		1952		1953		1954		1955	
District No.	Carrying Capacity	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.
1	34,221	- 7,164	-21%	- 3,946	-12%	- 2,672	- 8%	- 1,935	- 6%
2	20,506	- 2,499	-12%	- 1,640	- 8%	- 757	- 4%	+ 3,207	+16%
3	47,288	-13,157	-28%	-10,956	-23%	-11,380	-24%	- 9,930	-21%
4	23,372	+12,092	+52%	+12,995	+55%	+17,110	+73%	+ 8,755	+37%
5	26,351	- 8,660	-33%	- 8,201	-31%	- 7,413	-28%	- 7,631	-29%
7	49,727	-12,666	-25%	-12,086	-24%	- 8,995	-18%	- 4,906	-10%
8	29,978	- 2,796	- 9%	- 1,226	- 4%	+ 170	+ 1%	- 4,406	+15%
9	21,018	+ 1,894	+ 9%	+ 2,904	+14%	+ 5,721	+27%	+ 7,417	+35%
10	33,717	- 6,124	-18%	- 5,558	-16%	- 1,245	- 4%	- 3,761	-11%
11	17,261	- 4,913	-28%	- 4,365	-25%	- 2,833	-16%	- 2,879	-17%
12	52,385	- 5,219	-10%	- 3,403	- 6%	- 1,128	- 2%	+ 3,857	+ 7%
13	16,703	- 6,907	-41%	- 6,722	-40%	- 6,654	-40%	- 5,211	-31%
14	25,321	+ 3,070	+12%	+ 7,076	+28%	+11,848	+47%	+11,573	+46%
15 (on)	7,171	- 2,030	-28%	- 2,030	-28%	- 904	-13%	- 765	-11%
17	74,895	-16,723	-22%	-17,315	-23%	-16,290	-22%	-15,402	-17%
18	33,008	- 7,137	-22%	- 6,733	-20%	- 6,647	-20%	- 5,506	-17%
TOTAL	512,922	-78,939	-15%	-61,206	-12%	-32,069	- 6%	-18,711	- 4%

(1) Figures based voluntary livestock count - 1959

TOTAL NAVAJO-OWNED STOCK ON RESERVATION - COMPARATIVE BY YEAR AND DISTRICT;
NUMBER AND PERCENTAGE SHEEP UNITS OVER OR UNDER CARRYING CAPACITY 1952-1959 (1)

District No.		1956			1957		1958		1959	
	Carrying Capacity	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.	Range Use vs Carrying Capacity	% Over or Under C.C.
1	34,221	- 3,091	- 9%	- 1,774	- 5%	- 1,841	- 5%	+ 2,229	+ 7%
2	20,506	+ 6,950	+34%	+ 7,459	+36%	+ 5,094	+25%	+ 7,458	+36%
3	47,288	- 8,521	-18%	-10,709	-23%	- 9,691	-21%	- 7,828	-17%
4	23,372	+15,667	+67%	+12,283	+53%	+18,619	+80%	+19,932	+85%
5	26,351	- 6,876	-26%	- 5,296	-20%	- 4,916	-19%	- 3,153	-12%
7	49,727	- 6,324	-13%	- 4,474	- 9%	- 6,316	-13%	- 7,266	-15%
8	29,978	+ 4,554	+15%	+ 3,107	+10%	+ 7,925	+26%	+10,028	+33%
9	21,018	+12,672	+60%	+16,478	+78%	+19,716	+94%	+18,094	+86%
10	33,717	- 1,199	-36%	+ 220	+ 1%	+ 1,331	+ 4%	- 681	- 2%
11	17,261	- 1,241	- 7%	- 314	- 2%	- 200	—	- 380	- 2%
12	52,385	+ 2,951	+ 6%	+ 5,640	+11%	+ 5,601	+11%	+ 3,226	+ 6%
13	16,703	- 5,755	-34%	- 5,024	-30%	- 4,422	-26%	- 3,910	-23%
14	25,321	+ 6,699	+26%	+ 5,959	+24%	+ 7,168	+28%	+ 6,462	+26%
15 (on)	7,171	- 202	- 3%	+ 225	+ 3%	- 867	-12%	- 172	- 2%
17	74,895	-11,114	-15%	- 8,406	-11%	- 9,432	-13%	-11,883	-16%
18	33,008	- 5,771	-17%	- 3,675	-11%	- 2,291	- 7%	- 5,755	-17%
TOTAL	512,922	- 601	- 0%	+11,699	+ 2%	+25,478	+ 5%	+26,401	+ 5%

(1) Figures based voluntary livestock count - 1959

potential productivity, actual productivity, and actual use patterns. On the basis of these data, it will be possible to develop planned use programs for all areas of the Reservation designed to secure maximum productivity, on a sustained yield basis, in each zone.

The Tribal Grazing Committee members, as well as individual range users, are participating in the inventory and, although changes in use patterns will no doubt come about grad-

NAVAJO LIVESTOCK INDUSTRY
RESERVATION GRAZING RESOURCES - RANGE USE - 1959

District Number	Surface Area Acres	Surface Area Square Miles	Carrying Capacity S. U. Yearlong	Total Range Use S.U.Y.L.	Range Use vs Capacity S.U.Y.L.	% Range Use is Over or Under C.C.
1	1,035,540	1,618	34,221	36,450	+ 2,229	+ 7
2	1,094,976	1,711	20,506	27,964	+ 7,458	+36
3	1,743,397	2,724	47,288	39,460	- 7,828	-17
4	878,133	1,372	23,372	43,304	+19,932	+85
5	785,788	1,228	26,351	23,198	- 3,153	-12
7	925,088	1,449	49,727	42,461	- 7,266	-15
8	1,450,596	2,268	29,978	40,006	+10,028	+33
9	996,276	1,557	21,018	39,112	+18,094	+86
10	794,484	1,241	33,717	33,036	- 681	- 2
11	434,239	678	17,261	16,881	- 380	- 2
12	1,334,954	2,086	52,385	55,611	+ 3,226	+ 6
13	396,100	619	16,703	12,793	- 3,910	-23
14	637,101	995	25,321	31,783	+ 6,462	+26
15 (on)	184,562	288	7,171	6,999	- 172	- 2
17	1,161,888	1,815	74,895	63,012	-11,883	-16
18	603,911	944	33,008	27,253	- 5,755	-17
Reservation Total	14,457,033	22,593	512,922	539,323	+26,401	+ 5

(Continued)

NAVAJO LIVESTOCK-OUTSIDE RESERVATION-NEW MEXICO GRAZING DISTRICT 7 (District 15, 16, 19)(1)

1955										
District										
15	269	20,628	11,234	7,527	2,524	1,818	340	160	1,054	
16	366	28,784	14,190	9,507	5,739	4,132	348	164	1,423	
19	473	33,117	18,875	12,646	5,457	3,929	44	21	1,713	
TOTAL	1,108	82,529	44,299	29,680	13,720	9,879	732	345	4,170	
1956										
District										
15	528	37,103	18,777	12,768	5,169	3,877	521	250	1,850	
16	839	52,951	24,640	16,755	10,840	8,130	649	312	2,390	
19	396	26,476	15,382	10,460	4,368	3,276	46	22	1,299	
TOTAL	1,763	116,530	58,800	39,983	20,377	15,283	1,216	584	5,539	
1957										
District										
15	643	46,584	25,522	16,969	7,928	5,690	551	216	2,186	
16	1,071	71,001	35,748	23,780	17,061	12,255	878	346	2,936	
19	523	35,682	21,311	14,172	5,857	4,202	136	53	1,594	
TOTAL	2,237	153,267	82,581	54,921	30,846	22,147	1,565	615	6,716	
1958										
District										
15		53,657	30,609	22,651	9,361	8,238	573	315	2,279	
16		56,990	28,856	21,353	14,243	12,534	774	426	2,159	
19		38,177	23,563	17,437	6,672	5,871	133	73	1,482	
TOTAL	(2)	148,824	83,028	61,441	30,276	26,643	1,480	814	5,920	
1959										
District										
15		58,011	31,833	23,557	9,735	8,568	596	327	2,370	
16		63,585	31,092	23,008	15,347	13,505	834	459	2,326	
19		36,011	22,149	16,391	6,272	5,519	125	69	1,393	
TOTAL	(2)	157,607	85,074	61,956	31,354	27,592	1,555	855	6,089	

(1) BLM administers Public Domain and R. R. exchange lands. Area also includes tribally purchased land, allotted land, etc.

(2) No BIA or tribal permits on trust lands, a few leases between individuals and about 2,300 BLM permits in New Mexico Grazing District No. 7 to Navajos.

NAVAJO LIVESTOCK INDUSTRY
MATURE SHEEP UNITS BY LAND MANAGEMENT DISTRICT 1936-1959

Dist. No.	Carrying Capacity	STOCKING - MATURE SHEEP UNITS YEARLONG						
		1959	1958	1957	1956	1955	1954	1953
1	34,221	36,450	32,380	32,447	31,130	32,286	31,524	30,275
2	20,506	27,964	25,600	27,965	27,456	23,713	19,749	18,866
3	47,288	39,460	37,597	36,579	33,767	37,358	35,908	36,332
4	23,372	43,304	41,991	35,655	39,039	32,127	40,482	36,367
5	26,351	23,198	21,435	21,055	19,475	18,720	18,938	18,150
7	49,727	42,461	43,411	45,253	43,403	44,821	40,732	37,641
8	29,978	40,006	37,903	33,085	34,532	34,384	30,148	28,752
9	21,018	39,112	40,734	37,496	33,690	28,435	26,739	23,922
10	33,717	33,036	35,048	33,937	32,518	29,956	32,472	28,159
11	17,261	16,881	17,061	16,947	16,020	14,382	14,428	12,896
12	52,385	55,611	57,986	58,025	55,336	56,242	51,257	48,982
13	16,703	12,793	12,281	11,679	10,948	11,492	10,049	9,981
14	25,321	31,783	32,489	31,280	32,032	38,066	30,294	33,402
15 (on)	7,171	6,999	6,304	7,396	6,969	7,695	7,410	6,198
17	63,781	63,012	65,463	66,489	63,781	56,530	55,578	54,570
18	33,008	27,253	30,717	29,333	27,237	31,562	30,687	30,345
TOTAL	512,922	539,323	538,400	524,621	512,321	497,769	484,395	454,838

Dist. No.	STOCKING - MATURE SHEEP UNITS YEARLONG							
	1952	1951	1950	1943	1942	1940	1937	1936
1	27,057	25,656	26,056	30,946	37,463	50,021	53,825	42,121
2	18,007	18,228	16,636	19,620	23,006	25,679	28,221	26,238
3	34,131	36,901	34,830	44,543	49,011	51,912	56,514	44,764
4	35,464	33,000	33,051	41,340	40,390	47,258	49,606	42,718
5	17,691	18,568	19,277	24,676	26,596	23,196	29,808	17,108
7	37,061	36,828	38,015	42,783	40,169	39,894	56,425	51,419
8	27,182	26,859	26,753	30,363	34,251	33,162	41,709	25,539
9	22,912	24,916	25,969	34,866	37,034	45,422	39,521	28,676
10	27,593	27,407	29,642	32,911	35,519	37,767	43,539	40,769
11	12,348	12,054	13,759	15,952	15,119	14,708	20,991	19,987
12	47,166	50,706	52,856	63,763	73,780	69,798	66,764	59,464
13	9,796	10,361	11,993	16,591	19,033	21,294	19,403	18,980
14	29,186	30,990	31,457	38,517	40,883	49,687	52,808(1)	40,388
15 (on)	6,198	7,097	8,716	8,680	11,799	11,670	15,225(1)	30,586
17	55,114	59,743	58,746	74,126	69,519	63,499	87,808(1)	56,664
18	29,965	26,886	32,680	32,590	30,017	36,617	52,121(1)	70,591
TOTAL	436,871	446,220	460,526	552,267	583,569	621,584	707,879	656,774

(1) Include seasonal use by livestock from Taylor Grazing District 7.

NAVAJO LIVESTOCK INDUSTRY - RESERVATION DISTRICTS BY STATES - 1959

	ARIZONA			NEW MEXICO			UTAH		
Dist. No.	Range Acres	Carrying Capacity	Total Stocking S.U.Y.L.	Range Acres	Carrying Capacity	Total Stocking S.U.Y.L.	Range Acres	Carrying Capacity	Total Stocking S.U.Y.L.
1	1,035,540	34,221	36,450	0	0	0	0	0	0
2	795,356	18,048	26,541	0	0	0	299,620	2,458	1,423
3	1,743,397	47,288	39,460	0	0	0	0	0	0
4	878,133	23,372	43,304	0	0	0	0	0	0
5	785,788	26,351	23,198	0	0	0	0	0	0
7	925,088	49,727	42,461	0	0	0	0	0	0
8	992,239	22,847	36,921	0	0	0	458,357	7,131	3,085
9	607,373	14,959	29,195	16,684	753	824	372,219	5,306	9,093
10	794,484	33,717	33,036	0	0	0	0	0	0
11	417,235	16,541	16,881	17,004	720	0 (1)	0	0	0
12	205,503	6,300	6,516	1,009,664	44,126	42,050	119,787	1,959	7,045
13	0	0	0	396,100	16,703	12,793	0	0	0
14	0	0	0	637,101	25,321	31,783	0	0	0
15 (on)	0	0	0	184,562	7,171	6,999	0	0	0
17	1,161,888	74,895	63,012	0	0	0	0	0	0
18	474,972	26,973	24,171	128,939	6,035	3,082	0	0	0
TOTAL	10,816,996	395,239	421,146	2,390,054	100,829	97,531	1,249,983	16,854	20,646
Percent Total Stocking			78%			18%			4%

(1) Included in Arizona tabulation, minor seasonal summer use in New Mexico.

ually, the study in reference will indicate the direction and scope of such modifications as they are required for sound management purposes. In more concrete terms, the study may indicate a lower or higher carrying capacity for individual areas or Districts, it may point to the need for planned use of individual range areas on a seasonal basis; it may point to the need for range fencing; and it may indicate the need to consolidate herds in some areas. At present, some portions of the Reservation range are overused, while other portions are not used to their full capacity. A planned range use and management program will take livestock distribution problems into consideration and, hopefully, more effective use of the range resource will be made in future years. With the changing pattern of life in the Reservation area, customary range use based on relatively small herds of livestock using circumscribed sections of the Reservation range on a yearlong basis will no doubt need to undergo adaptive changes if the industry is to make its fullest potential contribution to the economy of the people.

Soil and Moisture Conservation: The Long Range Act recognized the continuing need for conservation work on the Navajo Reservation, and the appropriation of $10,000,000 was authorized for the support of this program. At the close of the decade, in 1960, total appropriations were as shown below:

TOTAL SOIL AND MOISTURE CONSERVATION-RANGE IMPROVEMENT

YEAR	LONG RANGE	REGULAR	TRIBAL	TOTAL
1951-60	$4,367,194	$1,989,849	$628,850	$6,985,893
1961	494,047	216,183	181,000	891,230
Total	$4,861,124	$2,206,032	$809,850	$7,877,006

The Soil Conservation Program: Although the need for soil conservation measures on the Navajo Reservation had become apparent in the years preceding the 1930's, it was not until that decade that a major effort became possible. The programs of the period in reference were aimed at erosion control, range and farm improvement and water development. In general, the Navajo people supported the conservation program, with the exception of that phase which involved range management and stock reduction. In subsequent years, it has been possible to continue the effort launched in the 1930's, and the program of the 1950's has been characterized by close collaboration between the Bureau of Indian Affairs, the Navajo Tribal Government, the land users themselves, the Department of Agriculture, Tribal Grazing Committees, Reservation Land Boards and others.

The conservation program involves protection of the land against erosion and soil deterioration, the restoration of eroded and depleted areas, the stabilization of runoff and sediment production on land areas, the improvement of cover with respect to crops, forest, pasture and range, the retention of water for farm and ranch use, and water management. The areas to which conservation work is applied lie within county, state or national watersheds, and the program is therefore highly diversified, including about 36 different "practices," as the several aspects of the operation are termed. The understanding and participation of Indian land users is obtained through the medium of meetings held at a "grassroots" level, and through the Tribal Grazing Committees and Land Boards. The scope and nature of the conservation program are reflected in the following summary:

PRACTICE	Completed 1930-1953	Completed 1953-1960	Total Completed	To Be Completed
Brush Control	6,536 acres	147,363 acres	153,899 acres	615,352 acres
Dune Control	1,000 acres	2,096 acres	3,096 acres	3,435 acres
Detention Dams	112	500	662	1,963
Levelling	735 acres	7,871 acres	8,606 acres	106,799 acres
Pond Constr.	152	2,077	2,229	1,949
Trees Planted	160,881	4,776,622	4,937,503	2,645,000

In addition, over 1,000 diversion type structures have been built, and water thus diverted from its course has been spread over more than 100,000 acres of rangeland, not only for the purpose of restoring the natural vegetative cover, but also to assist in recharging underground water reservoirs.

The conservation program is based on inventories of requirements on a long range basis. Technicians estimate that about 20 years, beginning in 1956, will be needed to complete the program, at a total cost of about $70 million.

Range Water Supply: For many years the availability of stock water has been a limiting factor in the development and institution of a sound program of range management. As a result, in the semi-arid expanse of the Navajo Country, many areas of sparse water supply have been used below their forage production capacity, while regions with ample stock water have been heavily over-used, leading to soil erosion and range deterioration. In view of the fact that the development of an adequate management program was an essential aspect of the broad conservation effort launched in the 1930's, early attention was given to the need for range water development.

Prior to 1930, water development had proceeded slowly, as the level of Federal appropriations permitted. In fact, in all the preceding years, only 51 reservoirs, 321 springs, 161 dug wells, 77 drilled wells and 23 artesian wells had been developed. In 1930-31 a careful survey of range water and other requirements was made by H. C. Neuffer, Supervising Engineer and Wm. H. Zeh, Forester,[19] and these men recommended the construction of 409 additional reservoirs, 317 springs, 132 dug wells, 16 drilled wells and 10 artesian wells "to provide for full use of grazing facilities in the Navajo Country."

The program proceeded during the ensuing period 1933-36 and, in the latter year, the Superintendent of the Navajo Reservation reported the development of 730 reservoirs, 158 drilled wells, 332 springs, and 273 dug wells. Five years later, in 1941, an Agency report placed the number of drilled wells on and off the Reservation, but within the Navajo Country, at 250. These were reflected as part of a reported 2,300 domestic and stock water developments.

However, so sparsely located were sources of water in many sections of the Reservation that even these improvements did not meet the total need. Little was done during the war years, but the Long Range Act provided for the use of a portion of the $10,000,000 authorization for Soil and Moisture Conservation and Range Improvement Work, to develop additional sources of range water. During the period 1950-58, a total of $2,975,395 in Federal funds (of which $1,042,560 was allocated under the authorization contained in the Long Range Act and $1,932,835 represented "regular" Federal funds) was used for the development, equipping and maintenance of an additional 152 wells. During the same period, the Navajo Tribe invested $1,844,000 in well construction and $165,000 in a maintenance program, thus adding 155 wells to those developed by the Bureau of Indian Affairs, and bringing to 307 the number of such sources of stock and domestic water developed in the Reservation area during the first eight years of the decade.

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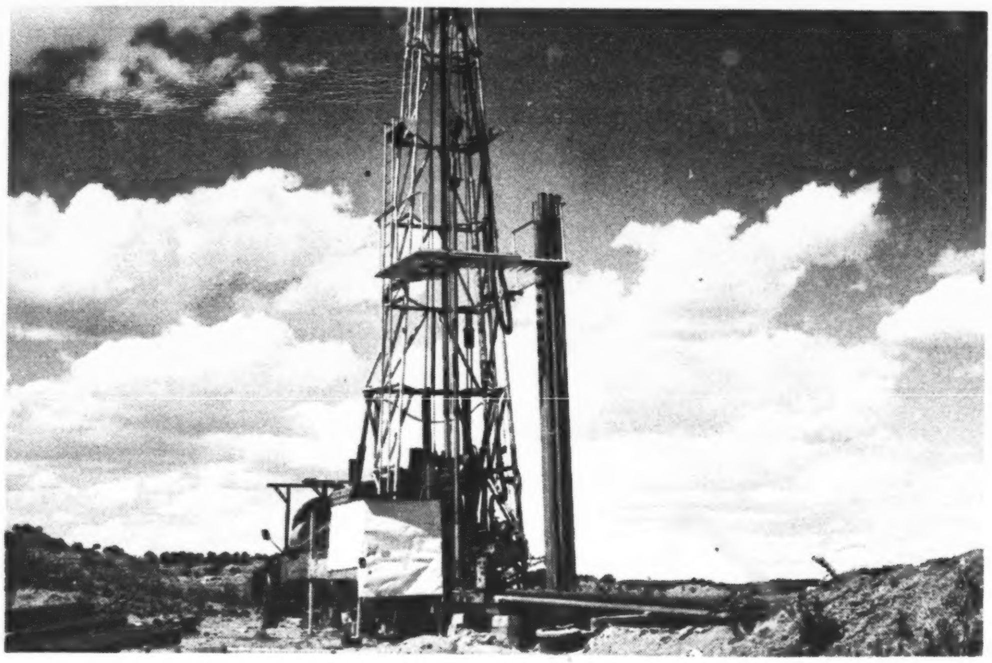
[19] Grazing, Range Control and Water Development — Navajo Indian Country — August, 1931.

The first Tribal appropriation for water development purposes was made in fiscal year 1952, motivated primarily by drouth conditions. The Tribal program was closely coordinated with that of the Bureau of Indian Affairs, and both agencies relied on the U. S. Geological Survey, Ground Water Branch, for well location. A second appropriation of $250,000 was made by the Tribal Council on January 23, 1953, and thereafter water development became a regular item in the Tribal Budget.



As a result of the joint effort of the Navajo Tribe and the Bureau of Indian Affairs, 490 new wells were drilled throughout the Navajo Country during the decade of the 1950's.

As the well drilling program conducted by the Bureau and the Tribe proceeded, the maintenance requirements increased proportionately and, in 1954, the Tribe agreed to assume a share of the responsibility for this function. Rather than base the Tribal Maintenance program on care of the specific wells drilled with Tribal funds, which were distributed throughout the Reservation area, the Tribe agreed to assume responsibility for the maintenance of *all* wells, springs and other developed sources of water in two districts (5 and 7). A year later, in 1955, district

4 was added to the Tribal maintenance program; in 1956, the number of districts served by the Tribe rose to 5; and in 1958, the Tribe maintained a total of 242 drilled wells, 305 dug wells and 335 springs located in 9 districts and in the Ramah area. At the same time (1958) the Tribe agreed to budget funds for the maintenance of all sources of water in the Reservation area, and the Federal Government agreed to complete its well drilling program with a final allocation of $225,000 in fiscal year 1959. Thereafter, the total burden of water development and maintenance was assumed by the Navajo Tribe and has been supported since by annual appropriations of Tribal funds. The progress of this program through fiscal year 1960 is summarized in the tables below:

WATER DEVELOPMENT AND MAINTENANCE
FEDERAL GOVERNMENT AND NAVAJO TRIBE
1951-1960

Fiscal Year	Federal Funds Construction & Maintenance	Tribal Funds Construction	Tribal Funds Maintenance	Total Federal & Tribal Funds Used For Construction & Maintenance
1951	$ 217,544	$ -0-	-0-	$ 217,544
1952	340,000	250,000	-0-	590,000
1953	545,896	-0-	-0-	545,896
1954	551,720	250,000	$ 14,000	815,720
1955	448,000	250,000	25,892	723,892
1956	448,000	250,000	40,000	738,000
1957	206,381	391,000	40,000	637,381
1958	217,854	480,000	75,000	772,854
1959	225,000	797,272	204,870	1,227,142
1960	-0-	816,854	340,846	1,157,700
Total	$3,200,395	$3,485,126	$740,608	$7,426,129

NAVAJO WELL-DRILLING PROGRAM - F. Y. 1951-60

District	Drilled by Government			Drilled by Navajo Tribe				Total Wells Drilled	Tribal Maintenance Program - 1960		
Number	1951-58	( ) 1959	1950-60	1951-58	( ) 1959	( ) 1960	1951-60	1950-60	Drilled Wells	Dug Wells	Springs
1	16	4	20	3	2	4	9	29	39	32	32
2	12	0	12	3	0	2	5	17	22	3	100
3	19	5	24	5	5	3	13	37	41	25	48
4	9	2	11	7	17	5	29	40	50	21	51
5	8	0	8	5	0	1	6	14	21	30	8
7	8	0	8	9	13	3	25	33	35	56	84
8	15	0	15	2	1	1	4	19	29	40	68
9	5	0	5	6	9	1	16	21	33	6	64
10	8	3	11	8	6	3	17	28	45	25	35
11	7	7	14	3	0	1	4	18	21	7	39
12	8	0	8	18	2	4	24	32	54	50	154
13	4	0	4	1	0	0	1	5	15	40	14
14	3	0	3	8	8	6	22	25	50	43	35
15	5	0	5	3	2	3	8	13	42	10	8
16	5	0	5	7	0	15	22	27	43	15	18
17	11	2	13	14	1	7	22	35	48	69	43
18	6	0	6	34	19	6	59	65	59	45	74
19	3	0	3	2	1	0	3	6	6	20	10
Ramah	0	0	0	7	3	0	10	10	13	0	0
Canoncito	0	0	0	6	1	0	7	7	13	6	5
Alamo	0	0	0	4	0	1	5	5	3	5	5
Bar-N	0	0	0	0	3	3	6	6	12	0	0
Total	152	21	173	155	93	69	317	490	694	548	895

( ) Does not include 2 dry holes.
( ) Does not include 52 dry holes.
( ) Does not include 3 dry holes.

Extension: The Extension Service operated by the Bureau of Indian Affairs represents the earliest effort in the field of adult education on Indian Reservations, and although Extension personnel were formerly called "Agency Farmers" or "Range Riders," their function was primarily educational. During an earlier period Extension personnel actually supervised such activities as branding, dipping, irrigation, and ditch cleaning. After 1950, the policy of the Bureau of Indian Affairs was directed toward the objective of diminishing or eliminating special services to Indians by the Federal Government, and increasing the degree to which necessary services would be available to Indians from the same sources as they are available to citizens generally. In conformity with this policy, an effort was made to obtain Extension services on the Navajo Reservation from State sources and, beginning in 1956, a contract was completed in New Mexico under the terms of which Extension services are provided through the office of the County Agent in Mc Kinley County.

Over the decade of the 1950's the trend has continued away from service functions and toward greater emphasis on education. In fact, at the close of the period, the Extension program of the Bureau closely paralleled that provided to non-Indian farm people through the State and County Extension Services. The Reservation program, in 1960, included Home Economics, Youth Development, Agricultural and Livestock Management, and Rural Community Development — all educational in their approach, and all designed to introduce new concepts to Indian people as bases on which to improve rural living standards.

During calendar year 1960, there were twenty-two Home Makers Groups on the Navajo Reservation, meeting together regularly to learn about such subject fields as sewing, cooking, sanitation, nutrition, community activities, etc. During the same year, fifty-six Navajo women attended the Country Life Conference at the University of Arizona, and the Home Makers' College at New Mexico State University. The Navajo participants in these affairs broaden their personal perspective through association with non-Indian participants and through the training offered, and act as leaders following their return to the Reservation communities where they reside.

During 1960, there were forty-nine 4-H Clubs in the Reservation area, with a membership of more than 1,200 Navajo boys and girls. These groups carried on a number of activities, including sewing, cooking, electricity, entomology, soil conservation, gardening, animal husbandry, food preservation and crafts. In the course of project work, the young people gain technical information as well as knowedge of parliamentary procedure, ability to speak before groups, skill in giving demonstrations and other advantages in the development of personality and leadership. They in turn carry the new concepts which they have learned back to their parents and to their home communities.

During 1960, Extension workers made more than 4,800 home visits, and attended more than 625 community meetings, presenting information and providing guidance in a great many fields.

Members of Navajo Agency Extension staff, in collaboration with Extension workers employed by the Navajo Tribe, carry on the Extension program in all parts of the Reservation area with exception of Mc Kinley County, New Mexico, where services are provided under terms of a contract as noted above. Elsewhere, Bureau staff members work closely with State Extension Service personnel in planning and carrying out programs, laying special emphasis on bringing Indian and non-Indian farmers and stockmen together. In this connection, Range Technicians from the University of Arizona have participated in numerous Reservation meetings, sharing late developments in the broad field of agriculture with the Indian people. Likewise, Animal Husbandrymen from the State University as well as Wool Marketing Specialists from New Mexico State University have conducted a number of Reservation meetings of an educational nature.

The basic objective of the Extension program is the improvement, through education, of Reservation economic and social standards.

The Bureau Extension staff was composed of 11 members in 1960, including one at Agency Headquarters, 4 at Shiprock, and 2 each at Fort Defiance, Chinle and Tuba City. The Crownpoint Subagency was served under the Mc Kinley County contract. Approximately $143,000 was allocated for the support of this important activity in 1960, including about $21,000 under the contract in reference.

Forestry

Within the Navajo Reservation area, about 760,800 acres, or a little more than 5% of the total land surface, lies at an elevation in excess of 7,500 feet. This region is generally more humid than the lower portions of the Reservation, and it is one which contains a fine stand of coniferous timber. As of January 1960, the Navajo forests represented 2,030,000,000 board feet of merchantable timber, located on a 458,457 acre area comprising the Defiance and Chuska-Tsaile units of the Navajo Work Circle. This timber is reserved for the Tribal lumber industry. Remaining forested areas are scattered and are not generally accessible for commercial purposes.

Of the merchantable timber composing the Reservation forests, about 98% is ponderosa pine; the remainder includes Douglas fir, spruce and white fir. In addition to the timberlands in reference above, there are about 3,214,555 acres of pinon and juniper.

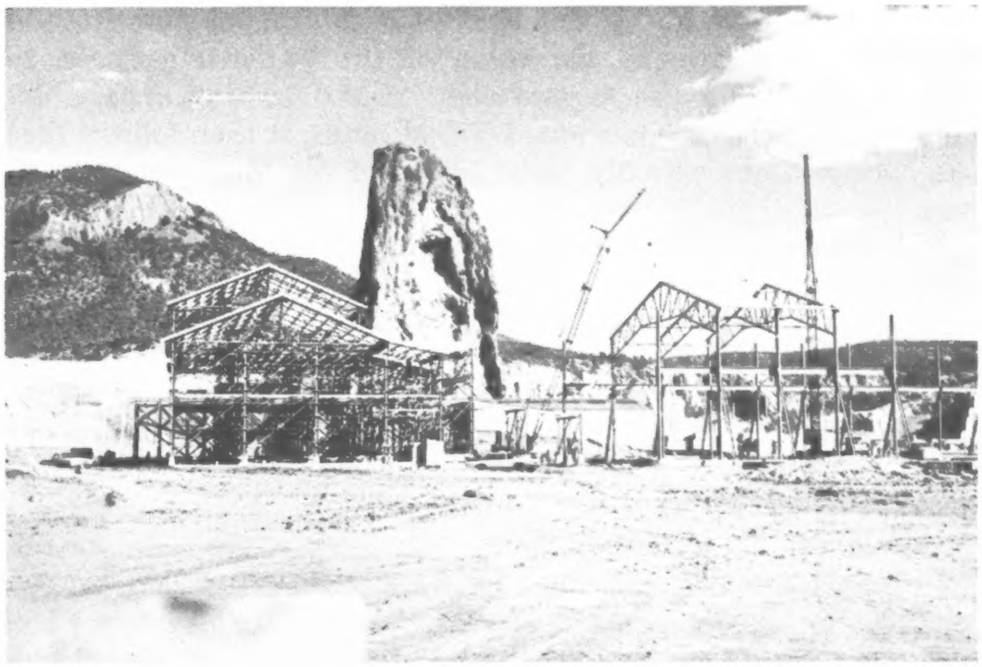
The Reservation timber represents a valuable resource and, since 1929, it has been managed and protected by the Navajo Agency Branch of Forestry. The Branch presently includes 13 regular employees and 14 seasonal fire control aides, of which total four are non-Indian. The management program, based on sustained yield principles, is financed jointly by the Navajo Tribe and the Federal Government. In fiscal year 1960, the Tribal contribution to this activity amounted to $40,943, while that of the Federal Government aggregated $66,624 plus $12,999 for fire suppression. However, to offset forest management costs, the Federal Government requires payment of 10% of stumpage receipts to the Treasury of the United States. Gross stumpage payments received in 1960 totalled $218,031, with the result that $21,803 was paid by the Tribe to the United States Government in that year, and if this amount is subtracted from Federal gratuity appropriations, the value of the latter is reduced to $44,221, excluding fire suppression. If the 10% stumpage deduction is viewed as contributed Tribal funds, it then follows that the Navajo Tribe actually bears 58.7% of the total management cost.

Commercial exploitation of the Reservation timber resource is a comparatively recent development, although a sawmill was established in the Fluted Rock area as early as 1880 to cut lumber for agency, school and mission construction purposes. The logs were skidded to the mill by ox-team, and this operation continued until 1907. During the same early period, a semi-portable mill was established at a location northwest of the present Tribal sawmill to provide materials for use in the construction of Agency buildings at Chinle.

In 1907, a mill was built in the Sanostee-Toadlena area to provide lumber for construction of the Shiprock Agency. This mill, or possibly its successor, burned in 1935, and salvageable equipment was transferred to the site of the present Tribal sawmill.

Until July 1, 1936, at which time the Navajo Agency Forester assumed operational control, all lumber was produced on the basis of advance orders submitted by the Bureau of Indian Affairs for construction purposes. For a brief period prior to

Occupying a total of more than 653,000 acres, the forest lands are among the most scenic areas of the Reservation. Accessible, merchantable timber aggregating over two billion board feet occupies about 354,400 acres.



The availability of a large stand of fine timber led the Navajo Tribe to appropriate \$7½ million for the construction of a new mill. Located at Navajo, New Mexico (north of Fort Defiance, Arizona) the new plant is expected to be operative early in 1962.

1936, personnel of the SCS and the CCC-ID had supervised milling operations.

In 1936, production totalled only 1,661,000 board feet of lumber. The mill was inadequately financed, and operation was intermittent. In 1939, the Navajo Tribe borrowed $50,000 from the Federal Government to rebuild the old mill at Sawmill, and an additional sum of $165,000 was borrowed subsequently in 1939-40 for construction and expansion purposes.

Problems of securing adequate financing of the operation continued to harass the Tribe and the Bureau until 1944, at which time, primarily as a result of wartime material shortages, the milling operation achieved a self-supporting status. Because of the payment in full of the several loans in 1946, all stumpage payments accruing from 1936 to 1946 were waived.

In 1946, after installation of an 8-foot bandsaw and development of increased boiler capacity, the Tribal sawmill attained a cut of more than 12,000,000 board feet per annum. The mill continued to expand, and production soon ranged between 17,000,000 and 20,000,000 board feet of dressed lumber. It became a member of the Western Pine Association, operating as the Sawmill Enterprise of the Navajo Tribe. In 1944, the sawmill had hired its first non-government project superintendent, Mr. Frank L. Carter, who served until 1960.

During the years since 1944, the lumber industry has been an important contributor to Reservation economy, employing about 300 Navajo workers in the woods and mill operation, with an annual payroll of $675,000 in fiscal year 1960. The payroll has remained at approximately this level throughout most of the decade of the 1950's, while the value of lumber sold has averaged more than $1,000,000 per year during that period.

For a number of years it was realized that statistics regarding the forest resource were inadequate. It was thought that better data would indicate that the annual cut could be increased. Consequently, at the suggestion of Agency foresters, the Tribe employed Kendall B. Wood Associates in 1950 and 1952 to make an aerial timber inventory that, upon completion, furnished basic information for the Master Forest Management Plan approved by the Indian Office, June 1953.

The Management Plan established the allowable annual cut, set forth growth and mortality predictions, and enumerated marking guides for timber harvesting to insure compliance with management objectives. It did not, however, recommend the manner in which actual conversion would take place. Therefore, again with the assistance of Bureau foresters, the Navajo Tribe retained the services of two private consulting firms specializing in forest development and lumber manufacture, for the purpose of advising the Tribe regarding the economic development of their timber resource.

In November 1956, a five-volume report entitled "Forest Development and Utilization Studies for the Navajo Timber Lands" was submitted to the Navajo Tribal Council by the firms of Hammon, Jensen & Wallen and W. H. Rambo.

Their analysis indicated that the reservation forests contained a higher volume of timber than reported by K. B. Wood. This conclusion was based upon more comprehensive inventory sampling techniques and was confirmed by Bureau foresters through further sampling. The development study recommended that a new lumber conversion facility be constructed, preferably by the Navajo Tribe, to process the approximately 38,000,000 board feet of ponderosa timber to be harvested annually from the Chuska-Tsaile portions of the Navajo Forest. In addition, the Defiance Unit would add its 12,000,000 to 15,000,000 board foot annual volume for the next decade, to be sawn at the old tribal sawmill, but dried and finished at the new plant, thereby making a total production in excess of 50,000,000 board feet, lumber tally, annually.

Because of the estimated costs presented within the consultants' feasibility study, and hesitant to embark on a business venture of the size proposed, the Navajo Tribe invited several large lumber companies, familiar with pine operations to submit proposals for converting the timber into lumber considering such aspects as (1) an exclusive negotiated timber contract (2) joint ownership of facilities by the Tribe and the operator and (3) a management contract, with the Tribe owning all facilities, and the operator supplying management on a fee basis.

For a number of years it was realized that data regarding the forest resource, were inadequate. It was thought that better data would indicate that the annual cut could be increased. Subsequently, Drs. Myron Krueger and John Zivnuska of the University of California were retained by the Tribe to analyze the several proposals which had been made by private industry. The Krueger-Zivnuska report strongly recommended that the Tribe own and operate its timber resources and conversion facilities essentially as proposed by the W. H. Rambo report and preferably by creating an entity separate from the Navajo Tribe.[1]

On July 23, 1958 the Tribal Council adopted Resolution CJ-38-58, appropriating $7,500,000 of Tribal funds to carry into effect the proposed Plan of Operation. The resolution created the Navajo Forest Products Industries and provided for its operation as a Tribal Enterprise under the supervision and control of the Advisory Committee acting through a General Manager and Management Board. Tribal representatives and their consultants subsequently discussed the resolution with the Commissioner of Indian Affairs. There was agreement that expansion of the present sawmill enterprise should be encouraged, but that the form of business organization to manage the enterprise, as contemplated by the resolution, should be modified. This question was referred back to the authorized Tribal representatives for their consideration.

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[1] See "Plan of Operation — Navajo Forest Products Industries," July 21, 1958 — prepared by W. H. Rambo, Industrial Plant Engineer, Portland, Oregon.

The sum appropriated by the Council does not include townsite development, which will require a further appropriation by the Council. It was on the basis of the potentially high allowable volume of cutting that the Navajo Tribe decided, in 1958, to organize the Navajo Forest Products Industries, planned as an integrated wood conversion operation wholly owned by the Navajo Tribe. The appropriation of $7,500,000 in Tribal funds will finance the first phase of the development namely, the construction of a new sawmill.

After careful investigation, covering availability of water, soil structure, and hauling distance from the woods to the mill and thence to the railhead, a site was selected near Red Lake, at a point 13.3 miles north and slightly east of Fort Defiance, Arizona (but across the state boundary in New Mexico). The site has been named *Navajo*.

The area was served by an unimproved dirt road, utterly inadequate for the anticipated use. Consequently, the Bureau of Indian Affairs contracted for the construction of 13.387 miles of asphalt surfaced highway and a steel concrete bridge, at a cost of $927,860. This highway has been completed and connects Navajo, New Mexico with the main highway at Fort Defiance, Arizona.

The new community is being built about one half mile south of Red Lake at Frog Rock, and an area of 860,666 acres has been withdrawn and set aside by the Navajo Tribe (Advisory Committee Resolution ACAU-149-60) for the use of the Forest Products industry and community site. Thirty housing units and necessary utilities are presently under construction, as the first increment of a planned community which may well become the prototype for community development and low cost housing construction at other reservation locations.

The new mill is designed to manufacture lumber with emphasis on quality control. It will employ the latest techniques including the debarking of logs, taper sawing, kiln drying, etc., and all stages of manufacture will be carried on under roof.

About 400 workers will be employed in the mill and woods operation; a total of about 550, including the old sawmill operation. The present payroll of $675,000 will increase to approximately $1,700,000 when the new mill commences operation and annual stumpage payable to the Tribe will increase to more than $600,000 per year.

On May 1, 1960, the Management Board for the Navajo Forest Products Industries[2] assumed custody of the present sawmill, and responsibility for its management and operation. The Board, in turn, delegated managerial responsibility to Mr. Leslie I. Holmes, General Manager, who will operate both plants. Under the formal Plan of Operation, the Bureau of Indian Affairs retains only such functions as the approval of advances of Tribal funds to the industry, approval of the General Manager's contract and similar responsibilities stemming from the trustee relationship between the Tribe and the Federal Government, including the authority to take over management of the enterprise if the Commissioner believes it to be improperly managed.

Thus, after nearly a decade of careful study and analysis, a new, multi-million dollar industrial development has taken shape on the Navajo Reservation; one which is expected to make a significant contribution to Reservation economy, both individual and Tribal, and one which may hopefully be the forerunner of additional developments to follow in the near future.

Development of Industrial and Business Enterprises

During the period 1868 - 1930, the Navajo people were almost totally dependent upon stockraising and agriculture for a livelihood, as pointed out in detail in the sections of the present report that relate to Soil and Moisture Conservation and Reservation economy (Placement and Relocation). The fixed land base established by the Treaty of 1868, and the continuing growth of the Navajo population, combined to compound the economic problems of the Reservation people across the years and, by the late 1920's, poverty and deterioration of the land base brought

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[2] The Management Board in 1960-61 comprised: Charles L. Wheeler, Chairman, and retired Executive Vice President of Pope & Talbot, Inc.; Louis Gervais, retired Vice President of Valsetz Lumber Co.; Herbert Jensen, Partner, Hammon, Jensen & Wallen Co.; Jan Oostermeyer, Retired President, Shell Chemical Co.; J. M. McCabe, Executive Secretary, Navajo Tribe; Ned Hatathli, Director, Division of Resources, Navajo Tribe; Sam Day III, Chairman, Parks Commission, Navajo Tribe; and Henry Gatewood, Manager, Tuba City Civic Center, Navajo Tribe.

THE NAVAJO TIMBER RESOURCE - JANUARY 1, 1960

A. MERCHANTABLE VIRGIN TIMBER	ACREAGE	VOLUME, Ft. B.M.
Ponderosa Pine		1,983,908,000
Douglas Fir		42,113,000
Spruce		3,328,000
White Fir		611,000
TOTAL	354,405	2,029,960,000
Average Net Volume per Acre (Ponderosa Pine)		5,598 Ft. BM
Average Net Volume per Acre (All species)		5,728 Ft. BM

B. UNMERCHANTABLE (INACCESSIBLE)	ACREAGE	ESTIMATED VOLUME, Ft. BM
Navajo Mountain		
Ponderosa Pine	10,454	25,000,000
Spruce	4,500	12,000,000
Defiance & Chuska - Tsaile Units		
All Species	284,200	100,000,000
TOTAL	299,154	137,000,000

C. CUTOVER	ACREAGE	VOLUME Ft. BM
Ponderosa Pine		
1936-1959 inclusive	98,745	248,356,830

Volume per acre removed 2,515 Ft. BM

PRODUCTION STATISTICS - NAVAJO TRIBAL SAWMILL (1)
ANNUAL PRODUCTION

FISCAL YEAR	LOGS PURCHASED NET SCALE, MFT	STUMPAGE VALUE (2)	LUMBER SOLD MFT	VALUE (3)
1953	12,392	$146,583	14,642	$1,111,020
1954	12,235	142,623	12,193	819,089
1955	16,932	169,093	17,506	1,325,623
1956	17,819	216,476	17,644	1,497,185
1957	17,186	288,154	17,863	1,329,460
1958	17,102	214,327	17,227	1,185,883
1959	14,664	132,243	18,612	1,357,475
1960	16,261	211,369	18,149	1,352,879

(1) On May 1, 1960 the Bureau relinquished responsibility for the custody, management and operation of the Tribal Sawmill to Navajo Forest Products, Industries, a wholly owned enterprise of the Navajo Tribe.

(2) Average Weighted Stumpage Value $12.21 per MFtBM.

(3) Approximately 50% of the sales/dollar received was paid in wages to Navajo employees.

into sharp focus the need for diversification of the Navajo economy. The total population, increasing annually, could no longer gain a livelihood from agriculture and stockraising exclusively. Obviously, there was an urgent need that a large part of the population base its livelihood on other resources, including wage work, business, professional and other pursuits.

The national depression of the 1930's gave rise to a variety of Federal Public Works programs, which in turn created wage employment opportunities for many Navajos, although the depression limited such opportunities geographically to the Reservation area, and categorically to land improvement and local construction projects. During this period emphasis was placed principally on range restoration, the expansion of irrigation agriculture and the creation of a system of Reservation schools. The perspective that controlled economic planning during the 1930's, with respect to the Navajo Country, was a reflection of national conditions which, by their nature, limited opportunities largely to the Reservation area.

With the outbreak of World War II, the economic situation changed abruptly and wagework opportunities for Navajos outside the Reservation were almost limitless during the first portion of the 1940's. It was not until the cessation of hostilities that the economic situation again took an adverse turn for the Navajo people, and once again the urgent need for diversification became apparent.

A wide variety of studies and recommendations were made during the period 1946 - 1950. The "Wathen Report" of 1947 catalogued Reservation resources in general terms and took the position that, even with full development, only about one half of the then existing population could support itself on the available or potential resource base — about 35,000 people. The remainder would have to look elsewhere for a livelihood.

In 1948, Max Drefkoff, an Industrial Consultant to the Secretary of the Interior, conducted a study of the Reservation resources potential,[1] with especial reference to the feasibility of developing small enterprises designed to utilize native raw materials and provide employment for Reservation residents.

A year later, in March 17, 1949, the Bureau of Indian Affairs contracted with Agricultural Industry Service, Inc. of Washington, D.C. for the conduct of a study of industrial potential in the Reservation Area. This report, submitted four months later on July 17, 1949, was partly a feasibility report covering the recommendations which had been made by Mr. Drefkoff —

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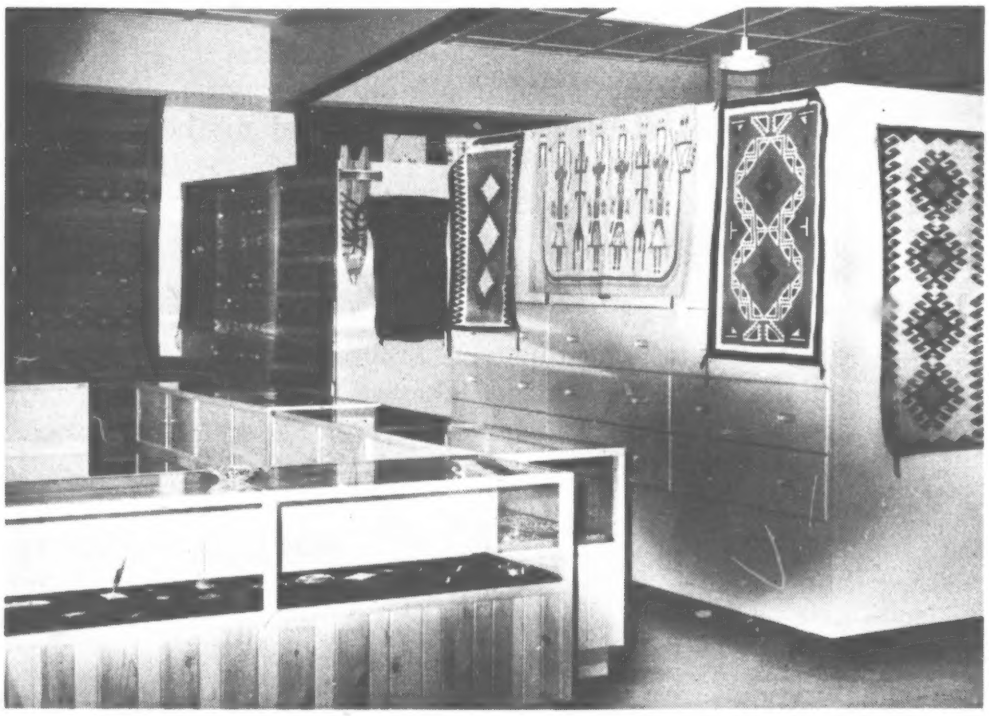
[1] Industrial Program for the Navajo Reservation, by Max W. Drefkoff, Industrial Development Specialist, mimeo. 1947.

Among the earliest forms of home industry on the Reservation are weaving and silversmithing.



The ancient arts of silversmithing and weaving are encouraged by the Tribe through the medium of a Tribal Arts and Crafts Guild which places a premium on fine craftsmanship and assures the highest possible level of return to its members.

in part, it was an extension of Drefkoff's work.

The company in reference reviewed factors favoring industrial development in the Reservation area, including:

1. Availability of medium grade coal, limestone, and volcanic ash, offering reasonably good possibilities for the production of cement, concrete blocks and other building materials.
2. Freedom from taxation on industrial enterprises on the Reservation.
3. The assured market for building materials, providing the Long Range Bill was approved by the Congress.
4. The Long Range Program if authorized, would provide the long term, low interest loan funds necessary for the establishment of basic industries.

Among unfavorable factors reviewed in the report were:

1. The lack of a trained Navajo labor force to operate the proposed industries, including the inability of most Reservation people to speak English.
2. The lack of community facilities, including housing, sanitation, water, roads and electricity, on the Reservation.
3. The heavy expense of developing adequate electrical power to serve the Reservation area.
4. The heavy cost of transporting products and equipment over the poor Reservation road system.
5. The unstrategic location of the Reservation itself with relation to off-Reservation commercial markets, coupled with high freight rates.
6. The lack of detailed knowledge of the quantity and quality of raw materials in the Reservation area, susceptible of industrial exploration.
7. The lack of an organization on the Reservation capable of launching an industrial program in the face of the serious obstacles outlined above. It was also the opinion of the firm that an agency of the Federal Government, such as the Bureau of Indian Affairs, could not operate with the freedom necessary to make quick decisions of the type required for successful industrial development and operation, nor could highly trained technical and managerial personnel be secured through Federal employment.

The Agricultural Industry Service, Inc. defined the type of industrial organization necessary as one possessing broad powers to make its own decisions, and to make them quickly. The organization would require freedom to hire top-grade consultants and technicians, and it would have to bear full responsibility for all phases of industrial development and integration. To accomplish the purpose, it was recommended that a Navajo Development Corporation be created and cloaked with the necessary authorities and powers. It was further recommended that the Development Corporation contract with a management firm to provide the wide variety of managerial functions necessary.

The firm urged that a Natural Resources Inventory be carried out at the earliest possible time, transcending in scope the survey contemplated as an aspect of the Long Range Program, in view of the inadequacy of available information in this regard. With completion of the inventory, industrial specialists would be brought in for the purpose of locating plant sites. Likewise, to provide necessary power, it was recommended either that a 50,000 KW thermo-electric plant, utilizing coal as a source of energy, be constructed capable of meeting Reservation power needs while at the same time selling surplus energy to the customers of Boulder Dam; or that a 10,000 KW plant be built to serve a Central Industrial Area on the Reservation. It was pointed out in the report that it would be wholly unfeasible for each industry to build its own utility system, its own community, its own transportation system and the like. The Fort Defiance - Sawmill - Window Rock area was suggested as a possible location for the proposed Industrial Community, assuming that the Resources Inventory confirmed the feasibility of this location.

With reference to specific industrial possibilities, the consultant firm recommended certain improvements in the Sawmill, including installation of drying kilns, development of additional water, and the acquisition of additional equipment. They gave a first priority to expansion of the lumbering industry on the Reservation, capitalizing on the fact that it was the only *existing* industry in the area, and on the fact that the stand of ponderosa pine was the only known resource.

With reference to wool grown on the Reservation, it was recommended that a processing industry be established on the premise that about 1½ million pounds of wool could be bought from the traders, profitably sorted and sold in the grease to eastern markets, and the remaining million pounds could be dyed, spun into yarn and woven into cloth.

Other raw materials were recommended for possible industrial use, including the manufacture of cement, concrete blocks, clay brick, glass and similar marketable products. It was recommended that the cannery be re-established in the Many Farms area, and that the local irrigation project be used for the growing of vegetables which would be canned for sale to hospitals, schools and private consumers.

The report of the consultant firm strongly urged that specialists be retained to direct or carry out necessary studies and analyses as a basis upon which to build industries capable of utilizing available resources, including the human resources of the Reservation area.

Some of the recommendations, as well as some of those contained in the Drefkoff report, were submitted to the Secretary of the Interior, and were incorporated, in general terms, in the Long Range Program, enacted into law by the Congress in 1950. A total of $1,000,000 was authorized for appropriation to finance business and enterprise development on the Reservation. Likewise, during the early years of the decade of the 1950's many of the specific recommendations made by Agricultural Industry Service, Inc. relative to improvements at the Sawmill, were placed in effect.

Following passage of the Long Range Act in 1950 (P.L. 474-81st Congress) a total of $238,000 was allocated in small annual grants during the period fiscal years 1951 - 57, to which the Navajo Tribe contributed $447,563 in money borrowed from the United States under the revolving credit program and $16,000 in tribal funds, to a grand total of $701,563.

During the period 1951 - 54, a number of experimental projects were undertaken by the Tribe including the purchase and operation of trading posts (Pinon, Sawmill and Wide Ruins), the establishment of cement products and wood products industries, the construction of motels (Window Rock and Shiprock), operation of the Window Rock coal mine, operation of a low cost housing project near Wingate Ordnance Depot (utilizing housing originally built by the Army to house ordnance workers at that location), establishment of Clay Products, Native materials, Leather Products and Wool Textile industries. The effort, based on the recommendations contained in the Drefkoff and Agricultural Industry Service reports, was only partially successful; the tribally owned trading posts were liquidated in 1955, along with other "pilot" enterprises; only the reorganized Arts and Crafts Guild, the Tribal Ram Herd, the Window Rock Coal Mine, the Wingate Village Housing Project, the two motels and the Tribal Sawmill survived.

Until January 1, 1954, the experimental industrial development program was directed and administered by the Advisory Committee of the Tribal Council and the Bureau of Indian Affairs, although after February 20, 1953, a Business Management Committee was organized. The latter was established under the terms of an agreement between the Bureau and the Tribe entitled "Agreement Between the Navajo Tribe of Indians and the Bureau of Indian Affairs Regarding the Establishment and Operation of Tribal Business Enterprises." The management committee was composed of three members of the Tribe, two persons selected from outside the Tribe and the Bureau, and two ex-officio members appointed from the staff of the General Superintendent of Navajo Agency. The Committee was charged with responsibility for reviewing all proposals for new Tribal enterprises, as well as the operation status of existing Reservation industries. The Agreement formally defined the responsibilities of the Tribe and the Federal Government in the field of industrial development.

The management organization actually became functional after January 1, 1954, at which time a General Business Manager was employed by the Tribe, in conformity with the terms of the Agreement. The 1953 agreement remained in force until February, 1957, at which time the Commissioner of Indian Affairs approved a request from the Chairman of the Navajo Tribal Council to terminate the agreement, but with the proviso that plans of operation for all enterprises be rewritten to reflect new management policies and methods of operation.

Business and enterprise development based on a small industry approach came to an end in 1957, with termination of the Agreement, and although it was generally unsuccessful as a solution for the economic problems of the Reservation area, the Tribe gained valuable experience from the efforts which had been made.

Actually, after 1954, major emphasis had shifted from small enterprise development on the Reservation in the direction of an effort aimed at the attraction of major, established industries, capable of employing Navajo workers, to communities bordering the Reservation. These locations offered the advantage of existing housing, utilities, transportation and other requisites, and it was the intention of the Tribe to cooperate with the surrounding towns in a joint effort to attract industries to resettle at these locations. The new Tribal industrial development policy was set forth in Council resolutions adopted on October 20 (CO-40-55) and December 8, 1955, (CD-44-55). The October resolution directed the Chairman of the Tribal Council to advise the Chambers of Commerce in the towns situated around the perimeter of the Reservation of the desire of the Navajo Tribe to participate with them in the development of local industries wherever such operations might promise to create markets for Navajo labor. The Council, at the same time, committed itself to consider the provision of physical plant facilities for such industries, and the subsidization of employee training.

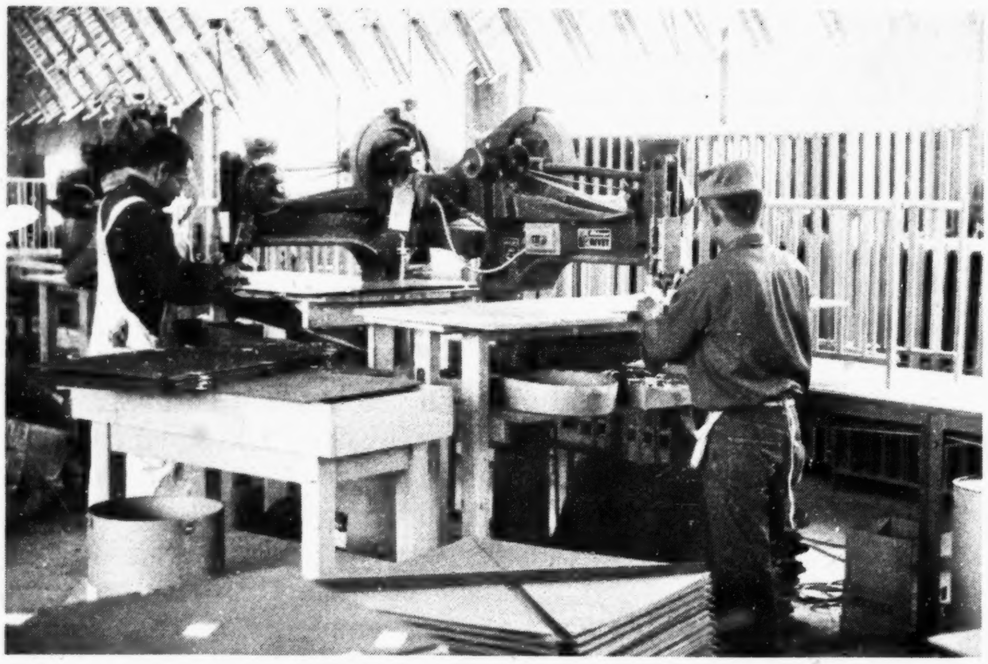
The resolution of December 1955 amended the fiscal year 1956 Tribal Budget in the amount of $300,000 to finance Tribal participation as authorized in the previous resolution, but the second resolution included extension of the geographical limits of Tribal participation to include all of New Mexico, Arizona and Utah, provided there was reasonable assurance that Navajo workers would be employed. Further, the December resolution authorized expenditure of the appropriated funds either directly by the Navajo Tribe, or through grants made to Federal, State, Municipal or private agencies, for the development of a census of Navajo employables with a cataloguing of their work skills and employment experience, and for the establishment of an employee training program.

In May, 1956, the Tribe employed an Industrial Manager and embarked on the new program in collaboration with a small staff which had been assembled previously by the Commissioner of Indian Affairs for the promotion of industrial development in the vicinity of Indian Reservations throughout the United States.

As a result of this action, an industry was brought to the Reservation area in the form of the Babyline Furniture Company of Gamerco, New Mexico. This industry, subsidized with about $200,000 of Tribal funds in accordance with a contract between the Tribe and the industry, continues to employ a total of 19 Navajo employees in the manufacture of playpens for small children. Expansion under way in 1961 will permit the employment of 25 additional Navajo workers in the near future.

In November, 1956, the manufacturing firm of Lear, Inc. established a small plant at Flagstaff, Arizona, with tribal participation, in which a force of twenty Navajos were employed in the assembly of electronic equipment. Although the operation was successful so far as demonstrating the adaptability of Navajo labor to the requirements of assembly work, the business recession which began in 1956 led to retrenchment of the electronics industry and to abandonment of the Flagstaff plant in the fall of 1957.

In the latter year, the Tribe leased plant facilities at Kingman, Arizona, and sublet them to a company manufacturing custom built furniture. A force of 16 Navajos was employed by this industry during the course of its operation, ending in 1958. National business conditions, along with other obstacles and limiting factors outlined in the report of Agricultural Industry Services, Inc., adversely affected the joint Tribe-Bureau effort to bring industrial payrolls to communities bordering the Reservation proper, although industrial development remains an objective of both the Tribe and the Bureau.



The Babyline Furniture Company, located at Gamerco, New Mexico, was the first industry brought to the Reservation area as a result of joint effort by the Tribe and the Bureau.

Although the Lears Electronic Assembly Plant at Flagstaff was closed after a short existence, it demonstrated the adaptability of Navajo labor to assembly work.

A total of $600,000 was appropriated by the Tribe; half in 1955 and half in 1956, and an additional $44,000 of Federal funds were advanced to the Tribe for industrial development purposes pursuant to the Agreement of June 4, 1953 between the Tribe and the Bureau.

During the period 1956 - 60, the Relocation Services Program extended the scope of its operations to include assistance to Navajos leaving the Reservation to take industrial employment in the plants established in surrounding towns.

The states surrounding the Reservation area have all made concerted efforts over the past five to ten years to accelerate development through the establishment of industrial payroll and the utilization of native raw materials, and the Reservation area must compete in this effort with the larger urban communities. Consideration of the disparities involved led tribal leaders, after 1958, to give increasing consideration to the urgent need for development of power, water and utilities as a basis for the establishment of modern communities in the Reservation area to which industrial operators might be attracted. At the same time, tribal leaders placed increased emphasis on the fullest possible development of existing Reservation potentials, including tourism, the acquisition of preferential rights to a share of the power produced in the Reservation area, and the control of power and other utilities developments in all parts of the Reservation.

A Tribal Parks Commission was established by the Tribal Council in February, 1957, charged with responsibility for operation of the Tribal Park system created by the Tribal Council in 1957[2], and this active Tribal group has taken the initiative in the promotion of the tourist potential of the Reservation area — a potential that has increased enormously in recent years as the expanding Reservation road system has opened up new areas of the scenic hinterland to travel, and as developments such as Glen Canyon Dam promise the creation of new recreational areas on the Reservation. The first Tribal Park to be established is that known as the Monument Valley Tribal Park. The area was fenced by the Tribe and a checking station was completed in 1960 near Gouldings in the Valley. During its first year, the park was visited by 22,114 persons who paid $4,092 in admittance fees and $7,855 for arts and crafts products sold at the Tribal observatory.

During the period 1958-60, the Tribe retained a firm of community development consultants to study and evaluate Reservation growth potential, and to plan community development for more locations where the economic feasibility of such an approach could be demonstrated. At the same time, an architectural firm was retained for the purpose of developing plans and specifications for a Tribal Capitol building at Window Rock, shopping centers and a string of Tribally owned and operated motels. The Tribal Council gave careful consideration to the proposed investment of Tribal funds involved, and to the possible economic and educational advantages that such a broad scale construction and development program would offer, rejecting the proposed program finally, in 1959, because the amount of money required was excessive in proportion to the annual level of Tribal income. In lieu of investing Tribal funds and operating a motel system as a Tribal enterprise, consideration was subsequently given to the possibility of attracting private capital to the Reservation under mutually satisfactory conditions, to thus provide a reasonable return to the Tribe and, at the same time, create local employment and business opportunities for Navajo people.[3]

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[2] Actually the Council acted in 1934 to authorize the establishment of Tribal Parks, but the action was never implemented. See unnumbered resolution of July 12, 1934, quoted in Navajo Tribal Council Resolutions, 1922-1951, Vol. I & II, p. 156.

In January 1959, the Tribal Council approved an arrangement whereby electricity would be purchased by the Tribe from the town of Farmington for distribution through a tribally owned utility system. Necessary contracts in this connection were approved in November of the same year by the Commissioner of Indian Affairs, and in the same month a Navajo Tribal Utility Authority was activated. Tribal funds in the amount of $450,000 were appropriated to construct necessary transmission lines from Farmington to serve customers in the

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[3] See Report of the Navajo Tribal Parks Commission at the November, 1960, Session of the Tribal Council, by Sam Day III, Chairman of the Navajo Tribal Parks Commission. The report states, in part, as follows: "We have now an Act of Congress which allows us to lease properties for 99 years. I am hopeful that our Legal Department will soon present to this Council the requirements necessary for us to enter into long-term leases with outsiders. We need motels throughout the Reservation, but I am opposed to the investment of Navajo capital and to the Tribal operation of such enterprises. I am convinced that nationally-known, reliable and competent operators of tourist resorts are interested in making investments in tourist facilities at Chinle, Crownpoint, Kayenta, Tuba City and the Four Corners. We need only to offer these people some security for their investments. Hundreds of jobs for Navajos will be created in the construction of such facilities and the operation of motels and other facilities will naturally result in increased Navajo employment.

"However, I say again that Navajo funds should not be tied up in such capital investments and that steps should be taken now to invite competent operators to investigate and invest in what I believe will develop into one of the Tribe's greatest sources of income long after our oil wells have gone dry."

Shiprock area, and service through the tribally owned system began in the fall of 1960. Water and sewer systems were built by the Tribe to serve Window Rock, Tohatchi and Tuba City, and the management, maintenance and operation of these systems was placed under the Tribal Utility Authority. At the same time, in February 1961, the Tribe appropriated $390,000 for the installation of natural gas lines to serve the Window Rock-Fort Defiance-Navajo (site of Forest Products Industry) area.

In 1960, after lengthy negotiation, the Navajo Tribe concluded a business lease and other agreements with the Arizona Public Service and Utah Construction Companies opening the way to construction of a major thermo-electric generating plant and distribution system. The plant, under construction after January 1, 1961, is located near Fruitland, New Mexico, and will utilize coal mined on an adjacent area under lease to the Utah Construction Company. Completion of the generation and distribution system is expected in 1963, at a cost of about $100 million. Initially, the plant will operate two 170,000 KV generators, and two additional generators of similar capacity may be constructed at a future date to thus produce a total of 700,000 KV. The Navajo Tribe, alert to its own future requirements, established the right to purchase 12½% of the total output at wholesale.

The long range plans developed by the Navajo Tribe for electrification of the Reservation area cover a 10-year period extending from 1960-1970, and will require the investment of about $6.6 million. Power will be supplied by the Arizona Public Service plant and Glen Canyon Dam after 1963 and 1964 respectively. With completion of the Reservation system, all communities will be served. The Tribe has proceeded to establish its eligibility for an REA loan, and the Tribal Council early in 1961, authorized the Chairman to make application for a loan of $2,275,000 to cover a portion of the facilities planned for the Shiprock area. Similar loans will probably be sought in the future as the electrification program moves forward.[4]

The consultant firm of Martin Toscan Bennett, retained by the Tribe about the middle of the decade of the 1950's has provided technical guidance in oil, gas, and utilities development in the Reservation area in conjunction with the Tribal Legal staff. The latter has been concerned especially with the protection of Tribal interests as private power and other developments have entered the Reservation area in recent years, in the firm conviction that industrial development, with the promise of new social and economic opportunities for the Navajo people, can take place only if the environment can be modified to eliminate the obstacles pointed out, more than a decade ago, by Agricultural Industry Service, Inc. Education, the completion of an adequate Reservation road system, the electrification of Navajo Communities and the construction of necessary utilities are necessary aspects of social and economic development in the Navajo Country, laying the basis for urbanization and the introduction of industrial payrolls which may some day permit a much larger population to live in the area, at nationally accepted standards, than was generally believed possible at the beginning of the decade of the 1950's.

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[4] See Report on a Long Range Plan for Navajo Reservation Electrification and the Economic Feasibility of First Stage Facilities, by Martin T. Bennett Assoc. Inc., January, 1961.

Resettlement on the Colorado River Irrigation Project

The Colorado River Indian Reservation and the beneficial ownership of its resources have long been the center of a controversy, which was brought into sharp focus by the Navajo-Hopi resettlement program, authorized by the Long Range Act, (P.L. 81-474) but actually begun in 1946. The events of the past decade can best be understood against the background of previous history.

Historical: Following separation of the territories of New Mexico and Arizona on February 24, 1863, and in conformity with prevailing federal Indian policy of the period, consideration was given to the establishment of reservations to accommodate and protect the several tribes occupying portions of Arizona territory. Charles D. Poston was appointed as the first Superintendent of Indian Affairs for the Territory and one of his first actions was that of visiting the several tribal groups.

In the southwestern portion of Arizona he met with the principal chiefs and headmen of the Yuma, Mojave, Yavapai, Hualapai and Chemehuevi, the combined population of which he placed at 10,000. After careful investigation, a decision was made to select a reservation for these groups on the bank of the Colorado River, construct an irrigation system for them, and thus provide them with a livelihood on a self-supporting basis through intensive agriculture.

The area originally recommended embraced about 75,000 acres of land upon which it was proposed to colonize about 10,000 Indians. Poston asked for an appropriation of $100,000 to defray the cost of building the irrigation system and indicated that the tribes involved would accept this arrangement in liquidation of claims to lands which had been taken, or might be taken in the future, by the incoming white settlers. Accordingly, on March 3, 1865, the 38th Congress enacted a bill establishing the reservation as recommended "for the Indians of said river (the Colorado) and its tributaries."

However, difficulties of various types ensued. There was no clear determination of what Indians were actually using the lands contained in the Colorado River Reservation prior to its establishment as such; there was trouble between the tribes and the settlers, and there was hostility among the tribes themselves. Efforts made to induce the tribes to move to the newly established reservation were largely unsuccessful. During the first 10 years, the only Indians who lived consistently on the Reservation were about 800 Mojaves who subsisted on Government rations while awaiting construction of the promised irrigation system.

Construction was begun on December 16, 1867 with an appropriation of $50,000, with which about five miles of canal was completed by Indian labor working wholly with shovels. An additional appropriation of $50,000 was made by Congress on June 27, 1868, and with this sum the canal was deepened and extended and a headgate was constructed. Water was first turned into the newly built canal on July 4, 1870, but for reasons of faulty construction of the headgate and the high stage of the river, more water was admitted than the canal could carry and the banks were washed out in some areas.

Between 1870-1918 various efforts were made, including the use of pumps, to increase the acreage of irrigable land. In the latter year, $50,000 was appropriated to conduct surveys and to prepare plans and estimates for a complete irrigation system sufficient to serve 150,000 acres, and a similar amount was again appropriated in the following year. As a result of these studies, the irrigable area was placed at 104,000 acres.

Subsequently, on August 30, 1935, the construction of the Headgate Rock Dam was authorized, a structure which was completed in June 1941 at a total cost of $4,632,775. By 1951, approximately 28,000 acres were under irrigation. Nearly all of this development took place after 1900 — or actually, after 1918, as reflected in the following summary:

Number of Acres under Irrigation on the Colorado River Reservation

YEAR	NO. OF ACRES
1900	500
1910	206

YEAR	NO. OF ACRES
1919	3,326
1930	7,054
1940	10,000
1951	28,000
1953	33,741
1955	27,494
1958	37,897

Expansion of the Reservation boundaries about 1876 brought most of the Chemehuevi into the area since the lands added on the west side of the Colorado River were those occupied by this Tribe. However, failure to complete the irrigation system promptly after establishment of the Reservation, reflected in failure to induce members of the several tribal groups for whom the Reservation had been set aside to take up residence there. In fact, the Yumas, the Hualapais and many other groups received their own reservations during the period between 1880-1890, and reservations were set aside for other Arizona tribes in subsequent years.

Executive Orders of 1873, 1874 and 1876 added lands to the Colorado River Reservation, and other such Orders subtracted lands, corrected or altered boundaries over the years with the result that, today, the Reservation embraces an area of 265,858 acres, of which about 100,000 acres are considered irrigable. During the period 1904-1916 an effort was made to allot the Reservation area on the basis of a specific acreage to each eligible Indian, with a view to throwing the remaining "surplus" open to entry and settlement by non-Indians.[1]

The Reservation continued to be viewed as an area set aside for the use and occupancy of Indians "of the Colorado River and its tributaries" generally, rather than the exclusive property of the tribes actually living there, and from 1933 to 1940, largely as a result of attention called by Supt. C. H. Gensler to the colonization potential of the Colorado River Reservation and the need for action to prevent its loss to non-Indians in the face of Indian need for new resources, the pressure for a resettlement program mounted. It was Mr. Gensler's estimate that the Reservation would support 2,896 families if its irrigation potential were fully developed. The Commissioner and other Bureau officials became interested and a series of exploratory conferences were held with the Colorado River tribes during the latter part of the 1930's.

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[1] The foregoing summary relating to the history of the Colorado River Reservation was taken from the very excellent and comprehensive report entitled *History of the Colorado River Reservation*, publ. 1958 by the Bureau of Ethnic Research, Dept. of Anthropology, University of Arizona.

By 1940 the Bureau of Indian Affairs was vitally concerned with the finding of additional resources, largely in the form of land, to relieve the mounting pressure on other Indian Reservations, and a set of plans for use of the Colorado River Reservation was developed.[2] It was estimated that 25,000 acres would suffice for the existing population at Colorado River, and it was recommended that remaining lands be utilized "for the settlement of Indians from other reservations on which the pressure of population and livestock on the basic resources of soil and water is excessive." It was further pointed out that, if the full 100,000 acre project were carried to completion, 75%-80% of the irrigable land would have to be used by Indians other than the 875 Mojaves and 312 Chemehuevis then constituting the Reservation population — otherwise, the pressures on Congress to open the "surplus" land to entry and settlement by whites would be irresistible. At the same time, if the project were not carried to completion, the valuable water rights attaching to the Reservation lands would be endangered.

In view of the original, although somewhat vaguely expressed intent of Congress at the time of the establishment of the Colorado River Reservation, designating it as an area set aside for the Indians of "The Colorado River and its Tributaries," but especially with a view to providing for the Yuma, Mojave, Yavapai, Chemehuevi and allied groups occupying areas in southwestern Arizona, and in view of the fact that most of these people refused to move to the Reservation during the last half of the 19th century, there has long existed a question relating to the beneficial ownership of the land and resources involved. The actual users and occupants of the Reservation, the Mojaves and Chemehuevis, have long considered themselves as the actual owners of the land, and it was therefore recognized, in 1940, that before the total irrigable acreage was developed and made ready for colonization by members of other tribes, this question would have to be resolved, at least to the extent of a practical agreement to which the Mojaves and Chemehuevis were parties.

It was recommended by the Bureau of Indian Affairs report[3] in 1940 that an opportunity for colonization at Colorado River be made available to the Navajo, the Hopi, the Papago, the Yuma, and certain of the Pueblos, because of the inadequate resources on the reservations occupied by these groups. It was pointed out that the Navajo were increasing rapidly; their Reservation was over-used; and their income, which reached a "peak" in

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[2] A program for the Utilization of the Colorado River Indian Reservation, publ. in mimeo by BIA, November 15, 1940.

[3] Op. Cit. Supra

1936, amounted to only $107 per capita, of which amount $42 represented non-commercial food stuff raised and consumed at home by the people. Likewise, the Hopi range was overgrazed and agricultural resources were inadequate, and the economic base for support of the other tribal groups mentioned above was insufficient for their support. It was recommended, accordingly, that legislation be enacted to (1) authorize resettlement at Colorado River of any tribal group whose then current land resources were inadequate; (2) establish a Board to evaluate the rights of the Colorado River Indians; and (3) authorize compensation to the Colorado River Indians for any losses they might sustain.

With respect to the tribes from which colonists might come, it was recommended that resettlement should be carried out, insofar as possible, with the cooperation and financial assistance of the tribes themselves, and that a colonist should not be required to separate himself from his people by forfeiture of tribal membership. It was recommended that the reserve in the northern part of the Colorado River Reservation be developed first to accommodate the Colorado River Indians, and that subsequently reserves be established to accommodate the resettled tribal groups.

During the war years, from March, 1942 to about 1945, an area comprising 25,400 acres of the Colorado River Reservation was commandeered by the Federal Government for use as a War Relocation Center.

However, in 1945,[4] the Colorado River Tribal Council and the Bureau of Indian Affairs entered into an agreement which was approved by the Council as Ordinance Number Five, and which provided for the division of the Reservation into two parts: (1) the Northern Reserve, of about 25,000 irrigable acres for the established residents, enrolled members of the Colorado River Tribes, and (2) the Southern Reserve, of about 75,000 irrigable acres, to be set aside for colonization by other Indians of the Colorado River drainage. To compensate the Colorado River Tribes for release of the Southern Reserve, it was agreed that 15,000 acres of land would be subjugated in the Northern Reserve, to be added to the 12,500 acres of land already developed there. At the same time, it was agreed that an equal amount of land would be subjugated in the Southern Reserve for the benefit of the colonists. However, to provide land tenure to such colonists in the Southern Reserve (in the form of per-

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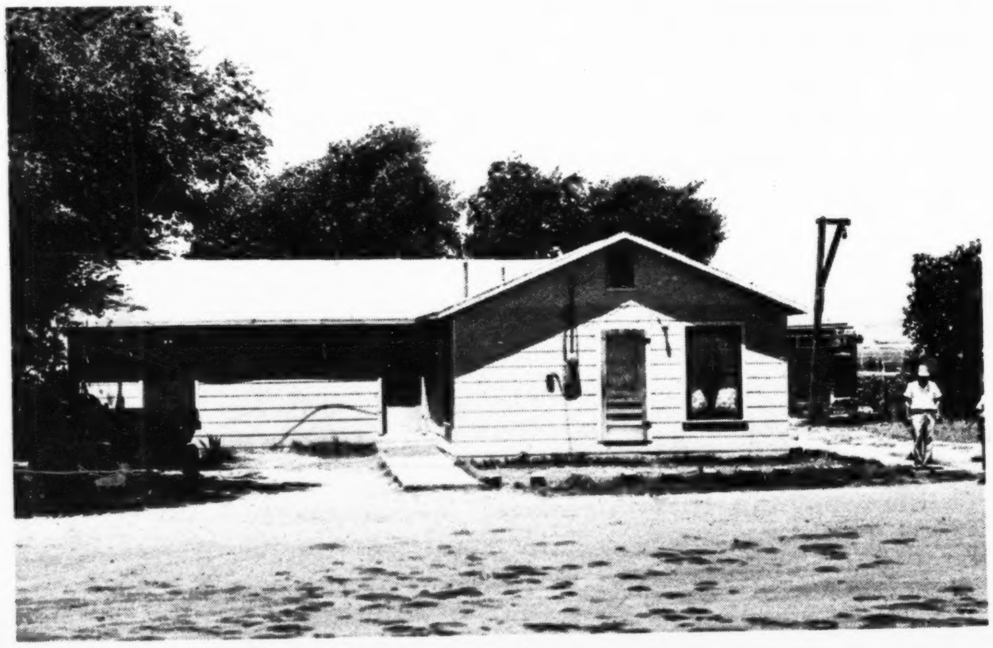
[4] The ensuing historical account is again taken largely from *History of the Colorado River Reservation,* publ. 1958 by the Bureau of Ethnic Research, Dept. of Anthropology, University of Arizona.

Hoeing cotton is hard work at anytime, but it is especially hard during the summer months when temperatures frequently exceed 110°F.



Some of the colonists have succeeded and have established themselves firmly at Colorado River. Some have built fine homes such as that depicted above.

petual assignments with title remaining in the Tribe) it was determined that colonists would be required to become members of the Colorado River Tribes, forfeiting membership in their original tribal groups. This legal demand had the effect of slowing the colonization program at its inception.

Nonetheless, the first colonists arrived on the Colorado River Reservation in June of 1945, and at the close of that year there were 15 Hopi and one Navajo family there. During the following decade the number of colonists taking assignments totaled 116 Navajos, 29 Hopis and 3 Supais, with the peak years falling within the period 1949-51, inclusive.

The Decade of the 1950's: Subsequently to 1945, and guided by private legal opinions, the Colorado River Tribal Council moved toward the conclusion that they had acted hastily in approving Ordinance No. 5, opening their Reservation for resettlement by other tribes. By 1949, they were sure they had acted wrongly and, in 1951, the Colorado River Council rescinded the ordinance. However, this action was subject to review by the Secretary of the Interior who refused to approve the rescission of Ordinance 5. This action led to the conduct of a referendum on January 5, 1952, pursuant to Article IX of the Tribal Constitution, and Ordinance 5 was modified by a vote of 233 to 5. The modifications (a) deleted the adoption clause to thus prevent other Indians from gaining control of tribal affairs; (b) required payment of rental by colonists; (c) reserved 35,000 acres for use by members of the Colorado River Tribes and authorized the development of 65,000 acres under improvement leases to non-member lessees, whether Indian or otherwise, with rentals to be deposited to the credit of the Colorado River Tribes. Thus, the Colorado River tribes asserted their beneficial ownership of the Reservation.

However, the Solicitor for the Department of the Interior held that the referendum did not abrogate Ordinance 5 which he viewed in the nature of a contract rather than as a piece of tribal legislation, and he held that the tribal organization could not breach this contract which had been made on its behalf by the Council.

The attorney for the Tribe then carried the matter to the United States Court of Claims, asking relief in the colonization case, and the Solicitor was again asked to provide an opinion relative to the legal status of the Colorado River Indian Reservation. The solicitor gave an opinion, on February 12, 1954 that, subject to judicial determination, the trust lands of the Reservation were held in trust by the United States for *all tribes* of the Colorado River and its tributaries who had settled or might be located thereon under Federal authority.

In the face of this litigation, the colonization program came to a standstill after 1951.

In 1955, in conformity with P.L. 390 (Act of August 14, 1955) provision was made for the improvement leasing of unassigned lands on the Reservation during a two year period after passage of the Act, but it was not until August, 1957, the month in which P.L. 390 was to expire, that a compromise was reached in the dispute to permit leasing action. A lease was signed with Colorado River Enterprises, Inc., covering development and use of about 65,000 acres located on the Reservation, in accordance with which the company was to develop 12,500 acres per year, reaching the total irrigated acreage in 1962. This would have brought 103,000 acres under subjugation, had the lease been carried out, and the Colorado River Tribes would have received a total of $397,000 in rental during the 25-year lease period plus the return of the developed land during the last 5 years at the rate of 12,500 acres per year. The developed land would thereafter be available for colonization purposes or otherwise used, depending on the nature of the settlement of the question of beneficial ownership that might be made during the lease period. However, the Company could not raise a $5 million bond required, and could not pay advance rental in the amount of $40,000 on 886 town lots in Parker as required by the lease agreement; as a result, this arrangement for development of the unassigned land at Colorado River could not be carried out.

During the ensuing period, the Colorado River Tribes sought a new approach to the protection of the Reservation, including what they considered to be their interests therein, and the water rights attached thereto. An effort made in 1957 to extend the provisions of P.L. 390, failed to pass in the Congress and the Tribe decided to develop a broad scale attack on the problem of securing necessary legislation to fix beneficial ownership in the Colorado River Tribes. This effort culminated in the passage of P.L. 86-506 in June, 1960, authorizing the Secretary of the Interior to apply the Indian land leasing laws on the Arizona portion of the Colorado River Reservation with the rental income to go to the Colorado River Indian Tribes. The rights of colonists who continued at Colorado River at the time of passage of the Act are recognized by the Colorado River Tribal Council, and these people remain secure in their holdings.

The next step will apparently be an effort to secure legislation firmly fixing title to the Reservation in the Colorado River Tribes. Whatever the case, the colonization program is apparently at an end.

The Navajo-Hopi Rehabilitation Act. On the premise that the Colorado River Reservation was not the exclusive property of the Colorado River Tribes, and on the strength of Ordinance No. 5 which authorized a colonization program at Colorado River, the Navajo-Hopi Rehabilitation Act authorized the appropriation of $5,750,000 to defray the cost of developing 15,000 acres in each of the two reserves (the Northern and the Southern), of which amount $3,349,750 was actually allocated during the period fiscal years 1951-58. A total of 11,350 acres were subjugated in the Northern Reserve and 12,910 were developed in the Southern Reserve, bringing the total irrigated acreage to 37,897 in 1958. Of this amount, 24,987 acres lay in the Northern Reserve.

As indicated in the table entitled "Progress of the Colonization Program," the major effort occurred during the period 1949-1951, inclusive. Between 1945 and 1948, funds were not available for a major resettlement program, and after 1951, the growing controversy over rescission of Ordinance No. 5 halted the effort.

PROGRESS OF THE COLONIZATION PROGRAM

YEAR	ARRIVALS			WITHDRAWALS		
	Navajo	Hopi	Supai	Navajo	Hopi	Supai
1945	1	16	0	0	0	0
1946	0	2	0	0	0	0
1947	6	3	0	0	0	0
1948	2	2	0	0	3	0
1949	15	1	0	0	0	0
1950	60	3	0	1	2	0
1951	32	2	3	7	1	0
1952	0	0	0	8	0	0
1953	0	0	0	20	1	0
1954	0	0	0	5	2	0
1955	0	0	0	16	1	2
1956	0	0	0	6	0	0
1957	0	0	0	5	1	0
1958	0	0	0	1	0	0
1959	0	0	0	2	0	0
1960	0	0	0	1	0	0
Totals*	116	29*	3	72	11*	2
No. Remaining	44	18	1			
% Remaining	37.9	62.1	33.3			

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*Excludes one Hopi colonist for whom neither arrival nor departure dates are available, and one Hopi colonist who died at Colorado River is omitted in the column headed "withdrawals."

Also, the requirement that colonists become members of the Colorado River Tribe, relinquishing their membership in the Tribe of their origin, caused many Navajos to oppose the proposed resettlement program. Actually, this same requirement was one of the factors that led the Colorado River Tribes, fearful of losing control over Reservation affairs, to rescind Ordinance 5!

At the same time, and for a wide variety of reasons including insecure tenure, nearly 58% of those colonist families that took assignments at Colorado River during the period 1945-51 relinquished their lands and returned to their home reservation areas. Of these, the majority departed after the program came to a halt in 1951. In fact, of those who withdrew, 88% of the Navajos and 45% of the Hopis left after 1951.

All except 3 of the Hopi colonists became members of the Colorado River Tribes, while only 2 Navajo colonists became members of the adopted group.

Other reasons involved in the withdrawal of colonists include (a) domestic and health problems; (b) lack of aptitude for irrigation farming; (c) failure to master the managerial requirements of successful farm operation; (d) inadequately small farm assignments at the beginning of the program; and (e) inability to adjust to the climate.

Although the land is rich and potentially productive, the climate is hot and dry, with temperatures climbing as high as 127°F in mid-summer, and with mean annual rainfall of only 5.07", in contradistinction to the cooler, moister climate in the higher elevations of northern Arizona. In 1945 when the resettlement program began, there was little or no precedent upon which to base economic planning for the colonists. It was thought that 40-acre assignments would suffice, but experience soon demonstrated the fact that a minimum of 80 acres was required to provide an economic unit and, after 1953, assignments were increased accordingly. Tractors and farm equipment, adapted to the smaller plots were not large enough for the increased acreages and had to be replaced. Funds were provided to finance colonists from the $1,800,000 appropriated for revolving loan purposes under the Long Range Act, but such loans had to be repaid. At the same time, colonist farmers had to learn to budget gross farm income to meet operational expenses — a technique to which they were not accustomed. In fact, it was necessary, in 1954, for the Colorado River Agency to establish a budget control system to preclude the failure of additional colonist-farmers who had proven unable to manage farm finances for themselves. This service was necessary, not only in the interest of the farmer, but also in the interest of assuring repayment of the Federal loan.

Farm loans ranging in value from $3,500-$6,000 per family were used for the purchase of necessary machinery and equipment, for housing, and for other purposes at the time colonists received their initial land assignments. During the period 1945-60, inclusive, 244 loans were advanced to colonists to an aggregate value of $698,612.83 and of these, on June 30, 1960, there remained 21 active loans to a total value of $61,374.23. Of all farm loans made to colonists, 27 were in default with an outstanding balance of $65,504.27 and, at June 30, 1960, of the 149 colonists who took assignments at Colorado River, 74 had repaid their loans in full. Cancellation of 27 loans accounts for $66,746.32 of the original amount advanced for credit purposes.

At June 30, 1960, 17 colonist-farmers were receiving budgetary assistance from Colorado River Agency. Within this group, gross farm income ranged from $4,756-$9,878 in calendar year 1959, or an average of $7,245. Estimated net income for this group ranged from a $1,373 loss to a high of about $2,865. The average net farm income was estimated at $1,294 (including the loss).

Cotton is a major cash crop on the Reservation, and it costs an average of $110 per acre per bale to raise, plus $50 for picking, and generally brings a price of $155-$160 per bale. Thus, with two bales per acre, the net profit is $90, and at three bales per acre, the net rises to $220. Production ranges as high as 3.5 bales per acre, although the average is 2.3 bales. With average production on 90 acres of Plan B cotton, selling at $155 per bale, net profit can run as high as $13,000 or more. Some colonists and other farmers attain incomes at this level, although average income figures are low, and this is especially true for the controlled budget group.

In part, the level of net profit is proportionate to the amount of labor contributed by the farmer himself. The average colonist-farmer in 1959, had received advances of about $80 per acre against the value of his cotton crop, using this advance to meet production costs for which he had not budgeted necessary funds. His profits were thus substantially reduced at the time the crop was sold.

Many colonist-farmers supplement farm income with wagework, gardens and by other means. Most of the Navajo and Hopi families remaining at Colorado River have acquired standard, and often attractive, housing for their families; they have modern transportation and modern household conveniences; and generally they are probably living better than they would have lived had they remained on their original reservations.

In part, the experience of Navajo colonist-farmers on the Colorado River Reservations was a factor which led the Navajo Tribe, in fiscal year 1957, to establish the Navajo Farm Training Enterprise near Shiprock, New Mexico. The 110,000 acre Navajo Project on the San Juan River looms nearer to realization than ever before, and Tribal officials are determined to take advantage of experience gained in the Colorado River Resettlement Program in the training of future Navajo farmers who, hopefully, will make their livelihood on the Navajo Project. It is probable that Navajo-Hopi colonists now at Colorado River will retain their farms and continue to make their homes on that Reservation.

Surveys and Studies

Across the years a variety of studies have been made with reference to the Navajo Reservation and its people. These include the Human Dependency Surveys of the late 1930's and early 1940's; investigations of range carrying capacity; analyses of the geography of the Reservation; ground water studies; timber surveys; mineral exploration; school census, and many others. In some fields—ground water, timber and minerals, for example—the results of these investigations continue to prove valuable as the basis upon which to carry out developmental programs. In other fields—human dependency, range carrying capacity and census, for example—the results of past studies are not wholly applicable to present day requirements because they involve subject fields that have undergone changes and the studies have not been maintained current to reflect the changes that have taken place. Their value remains that of providing points of reference in time with which present circumstances can be contrasted.

The Long Range Act included authorization for the appropriation of $500,000 to finance needed surveys and studies, and during the decade a total of $436,895 was allocated under this authorization. The following projects were completed during the period 1951-1958:

The completion of additional surveys and studies in the Reservation area would be of great value in the planning and execution of programs designed to cope with Navajo problems. These include:

(1) *Human Dependency Survey*: Although the economy of the Navajo people is known to be lower than that of the

surrounding non-Navajo population, there is insufficient knowledge of its present day characteristics and of its potential for improvement. The assembly of information relating to (a) educational levels, (b) job skills and aptitudes, and (c) present economy of Reservation residents would be valuable as a basis upon which to plan and carry out programs involving job placement, relocation, adult vocational training and vocational education. In addition, the welfare requirements of the population could be more adequately determined and identified. Such a project should no doubt be carried out jointly by the Agency and the Tribe in its initial phases, assembling information of the type in reference, as well as census and other types of demographic data, as incidentals in the establishment of a Tribal roll which, when completed, should be maintained current by the Tribe. Registrars might be established at the Subagencies and at school locations throughout the Navajo Country during the period of development of the basic roll. Such a project might be carried out by utilizing available staff and facilities at minimum cost to the Tribe or to the Federal Government.

(2) *Cadastral Survey*: All or a portion of the exterior boundaries of the Reservation should be retraced or resurveyed, and internal lines, especially in areas of expected development, should be established.

(3) *Geologic Mapping*: The geologic mapping program under the direction of the Fuels Branch of the U. S. Geological Survey should be completed, looking to the expansion of oil, gas, coal and other mineral developments in the Navajo Country.

(4) *Allotment Inheritance*: About 4,200 individual Navajo allotments, comprising 661,620 acres of trust land in areas adjacent to the Reservation require early attention. Many of these allotments are now in heirship status, and only about half have been probated. With oil, gas and other mineral development in the area of allotted lands it is urgently necessary to bring the records current with regard to these holdings. In addition, the problem of fractionation through inheritance must receive early study as the basis for Tribal policy in the future.

(5) *Timber and Woodland*: There is an urgent need for the study and reclassification of about 3.5 million acres of Reservation woodland as a basis upon which to develop long range use plans, taking into consideration such conflicting values as grazing, watershed protection, commercial value of pinon and juniper, etc. At present, pinon and juniper eradication programs are carried out on the premise that the most valuable resource is the increased grazing potential.

(6) *Reproduction of Maps and Documents*: A number of maps, documents and reports completed in previous years have continuing value, and should be reproduced for the use of the Bureau, the Tribe and other interested agencies.

(7) *Industrial Survey*: A survey should be carried out in the Reservation area to determine the potential for industrialization and urbanization. Such a study would be valuable, not only in the field of economic planning, but also in that of future planning for educational and health facilities.

Off-Reservation Placement and Relocation

THE NAVAJO ECONOMY

Historical: In traditional Navajo society, agricultural and stockraising were the mainstays of the economy; in fact, traditional culture was centered around these activities. Prior to the Treaty of 1868, the Navajo Tribe had ample grazing land to support the herds, and additional range could be acquired readily by the simple expedient of westward expansion. Children were taught traditional techniques of animal husbandry and farming, and were usually given a start in the stockraising industry, by their parents, at an early age.

During the Spanish-Mexican period, enterprising young people could build or add to their herds by raiding the Pueblos and the Spanish settlements on the Rio Grande, and there developed in the traditional society of the pre-treaty period, a social stratification comprising the "ricos'" or rich stockowners; the group owning modest numbers of stock; those who owned few or no livestock; and the slaves. Of those owning little or no livestock, many lived by farming and by attaching themselves as herders to the larger stockmen; of the stockless group, some became raiders in an effort to better their economic condition. At the bottom of the social structure were the slaves and unwanted orphans who herded stock and performed other drudgeries for their owners or guardians.

The Treaty of 1868 reduced the land area available to members of the Tribe, although they resumed the traditional way of life (except for the institution of raiding), following their return from Fort Sumner. In subsequent years the Reservation grew, but the growth did not remain abreast of expanding need as the population increased, and not only was there little or no space for expansion, but intense use of the available range beyond its carrying capacity caused widespread deterioration of this basic resource.

In 1894, only twenty-six years after the signing of the Treaty, Agent Edwin H. Plummer wrote[1] to the effect that "The Reservation is not large enough or in condition to support the herds of the Navajos, and this has been made the subject of several reports by me. * * * Only those in continual contact with these Indians know how impoverished they and their Reservation are, and what urgent necessity there is that something be done for them."

By the mid-1920's there was dawning realization on the part of the Federal Government that the problem of range use on the Navajo Reservation was one demanding immediate attention although, at that time, there was little understanding of the extent of overgrazing, the characteristics of the economic problem or the remedial measures required in the interest of sustained yield management. One fact stood out in the observation of a succession of responsible representatives of the Federal Government on the Reservation, namely, that the Navajo people were poor and were becoming progressively poorer year by year as the quality of their livestock and rangelands declined. Lacking the education, the motivation and the cultural perspective necessary to place themselves on a competitive plane with non-Indians through economic diversification, the Navajo remained predominantly dependent for a livelihood on the dwindling Reservation agricultural and range resources.

The Reservation economy, already precariously balanced, was especially vulnerable to the sudden decline in the wool and lamb market that heralded the beginning of the national depression of the 1930's. This fact is reflected in a letter of October 19, 1932 from John G. Hunter, Superintendent of the Southern Navajo Agency to the Commissioner of Indian Affairs, requesting the early delivery of three carloads of "Red Cross Flour" for the relief of destitute Navajos in the Fort Defiance area. Mr. Hunter observed, in his letter, that "Depression for the last three years throughout the country has perhaps hit the Navajo people more severely than it has the average white person. As you know, the Navajo is almost entirely dependent upon his income from the livestock industry — principally the sale of wool and lambs. This income has been greatly reduced. In fact, it is almost reduced to the vanishing point, since there has been practically no market for wool and lambs. During the past winter the Indian was forced to feed his corn, which is ordinarily sold to the trader, to his sheep. This again reduced his income."

During the early depression years donations of food and clothing by the American Red Cross, emergency relief funds made available through the Bureau of Indian Affairs, public works, and similar types of aid averted economic disaster on the Reservation. During the latter half of the decade of the 1930's major public works programs entered the Reservation area. Although concerned largely with soil conservation, school and agency construction and other objectives, these programs brought with them work opportunities and the beginning of revolutionary social and economic changes for the Navajo people. In 1932, wage income on the Reservation was reported at $200,000, but a year later it rose to $800,000.[2] By 1936, wages totalling $1,712,010 paid to Navajo workers, represented 34% of the total Reservation income.

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[1] Navajo Agency Letterbook - 1894

During the same period, and in subsequent years, the comparative value of stockraising and agriculture in the Reservation economy steadily declined, a fact which is indicated by comparison of the livestock ownership pattern in 1915 as reported by Superintendent Peter Paquette for the Southern Navajo Jurisdiction (Fort Defiance area) and for the entire Reservation in 1958, as reported by the Branch of Land Operations, Navajo Agency.[3]

Number Sheep Units (Size of Herd)	Ownership Distribution By Percent 1915 1/ Southern Navajo Agency	Total Families 1958 2/ Reservationwide
None	24.2	53.9
1 - 25	16.0	13.1
26 - 50	12.6	10.7
51 - 100	13.5	12.6
101 - 300	18.4	9.0
301 - 500	6.9	0.5
501 - 800	4.4	0.1
800 -1,200	2.3	.0
1,200 - over	1.5	.0

1/ Distribution of *sheep* only among 2400 families counted by Supt. Peter Paquette in the Southern (Fort Defiance) Navajo Agency jurisdiction.

2/ Based on all classes of livestock (sheep units) in the possession of *all* families, Reservation-wide.

In 1915, there were 2,400 Navajo families in the Fort Defiance area, of which 15% owned 300 or more sheep; about 44 years later there were an estimated 3,400 families in the same area, but only 0.7% owned as many as 300 sheep units.

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[2] Council minutes - October - November, 1933

[3] The comparative ownership figures shown in the table reflect the changing pattern in general terms. Actually, the data for 1915 pertain *only* to sheep; those for 1958 include *all* classes of livestock and many small permit holders in 1958 owned only horses.

At the same time, in 1915, over 42% of the families owning livestock in the Fort Defiance area lived on 100 *sheep* or less, in conjunction with farming, and this segment of the population probably had little supplemental income from wages or similar sources; 44 years later, 62% of the people in a comparable area owned less than 100 sheep *units* (including horses and other non-productive stock), and used this resource primarily to supplement wage work as a basis for livelihood.

On the western side of the Reservation, where range resources and population are sparser and farming opportunities are fewer, only 5% of the families resident in District 1, for example, were reported without livestock in 1936; 33% owned in excess of 300 sheep units and 24% eked out an existence on herds of 100 or less. In the same District in 1958, only 0.4% of the families were reported as owning 300 sheep units or more, and 70% owned less than 100 sheep units.

ESTIMATED NAVAJO INCOME [1/]
1940

SOURCE	AMOUNT	PERCENT TOTAL
1. Livestock & Agriculture	$2,357,590	58%
2. Arts and Crafts	348,000	9
3. Wages	1,195,200	30
4. Miscellaneous	126,440	3
TOTAL	$4,027,530	100
Average Per Capita	$ 81.89	

[1/] Statistical Summary, Human Dependency Survey, 1940.

Available ownership distribution data for 1958 indicated that more than half of all Navajo families owned no livestock whatsoever; about 36% had up to 100 sheep units, and only 9.6% owned in excess of 100 units. If an average value of $10 per year is ascribed to each sheep unit of productive livestock, 100 head of sheep would provide a maximum return of $1,000 per year. Actually, of the 36% of all Navajo families reflected as owning up to 100 sheep units, only about one-third had as many as 76-100 sheep units, including horses, burros, goats and other unproductive classes of stock, and these classes comprise 36% of all livestock using the Reservation range. It is frequently the *only* class of stock in the possession of small permittees (those with permits for 1-25 sheep units).

Assuming an average of five members to each family, a subsistence herd would have to include a minimum of 250 sheep units of productive stock. And if *all* of the estimated 17,500 families comprising the tribal population were to own subsistence herds today, the Reservation range would have to carry over 4,000,000 sheep units; its rated carrying capacity is 512,922 sheep units or less!

It was the growing inadequacy of Reservation range resources, in combination with other factors, that led to the soil conservation program of the 1930's, and it was largely the need to halt destruction of the range and establish improved management practices that led to the stock reduction program, the development of grazing controls and the setting in motion of a revolutionary process that continues to the present day. With the imposition of grazing regulations in 1937, only those heads of families owning livestock at dipping time in that year were declared eligible for grazing permits, and thereafter only through inheritance, transfer or sale of permits could persons owning no stock in 1937 acquire herds subsequently, and establish themselves in the livestock industry. This innovation doomed the traditional practice followed by many families, of giving breeding animals to each child at an early age as the beginning of the herd on which the child would depend for a living when he or she reached adulthood. Likewise, prior to the 1930's, Navajo society was commonly matrilocal in its structure — i. e. after marriage, the man often took up residence with the extended family of his wife, a system which was well adapted to the traditional economy. However, with the introduction of wagework, requiring the man to go where jobs were available, and with the decline of the livestock industry, the traditional social structure began to break down.

The war years of the 1940's opened up new wage opportunities to Navajos, on the railroads and in industries, many of which were located far from the Reservation. At first, there was heavy turnover in the Navajo labor force as workers left their jobs after a few weeks to return to the Reservation to care for their families, look after interests at home, attend ceremonies or merely to find respite from the pressures of the outside world in a familiar environment. As time passed, more and more workers remained at their jobs outside the Reservation for greater and greater periods of time, and many took their families with them. The Reservation agricultural base had rather suddenly ceased to represent the principal source of livelihood for a majority of the population, shifting to a position in the economy of the Tribe wherein it represented a supplement to wage income earned within or outside the Reservation area. However, the old way did not lose its place as a value in Navajo thinking, nor has it lost that distinction to this day.

The end of the war brought the sudden closure of many war time industries and the sudden end of the economic boom the Navajo people had come to enjoy. They were obliged to fall back on the meager resources of the Reservation area which, untended during the war, were more inadequate than ever to support the population. Disaster was again averted through the provision of welfare assistance by Government and private agencies, and a portion of the Federal funds appropriated for Navajo assistance purposes in 1947 was designated for the support of a newly established Branch of Welfare and Placement concerned, to a large degree, with the development of work opportunities for Navajo labor in a wide variety of industries including agriculture, mining, and the railroads. Eight sub-offices were established at strategic locations throughout the Reservation area, charged with responsibility for the recruitment of Navajo workers, and four regional offices were placed in operation in Denver, Los Angeles, Phoenix and Salt Lake City to contact potential employers and develop work opportunities for tribal members.

As order again emerged from the chaos of the post-war years, wagework was reestablished, this time as a permanent aspect of Navajo economy. The necessity for economic independence of Reservation agricultural resources for a majority of the population led to increasing emphasis on off-Reservation wage-work opportunities, and the Long Range Act accordingly included an authorization for the appropriation of $3,500,000 with which to pursue the objectives of the economic program, including the long term or permanent resettlement of Navajo families to distant areas where industrial employment was available. The latter aspect of the program became known as Relocation; closely tied to educational progress, this effort on the part of the Federal Government has gained a large degree of acceptance and has attained considerable success with reference to the Navajo.

The Relocation Services Program will be treated in detail under a separate part of this section.

The Bureau of Indian Affairs continued to operate a placement service until July 25, 1950, at which time an agreement was executed between the Bureaus of Indian Affairs and Employment Security in accordance with which placement responsibility was transferred to the State Employment Offices and to the Railroad Retirement Board. The latter assumed exclusive responsibility for the recruitment of Navajo railroad workers, while the State Employment Offices act as clearing houses for other types of employment. This action reflected basic Bureau policy aimed at the elimination of special services which duplicate those that are normally available to other citizens from State, County, Municipal or other Federal sources.

On July 1, 1955, a new memorandum of agreement was signed between the Bureau of Indian Affairs and the United States Department of Labor, superseding the agreement of July 25, 1950. The new agreement emphasized the primary objectives of permanent, voluntary relocation and the provision of full employment services to Reservation Indians, including counselling, the administration of aptitude and proficiency tests to prospective Indian workers, and full consideration of the qualifications of Indian applicants in the filling of job orders.

The Long Range Act carried a provision aimed at securing maximum employment of Navajo labor in all construction programs carried out with funds authorized under the terms of that Act on the Reservation, and it included a provision for the conduct of an on-the-job training program as an adjunct of such employment, designed to train Navajo workmen. During the first three years of the rehabilitation program all types of construction were carried on under force account and, in March 1952, 1,596 Navajos and Hopis were employed on Reservation projects. In 1953, 1,199 Navajos and 214 Hopis were so employed, and in that year 87 Navajo and Hopi were undergoing training under the apprenticeship and trainee program on road construction alone. In the same year, six Indian machine operators completed training and were promoted to journeyman operator.

The force account construction and on-the-job training program came to an end in 1954, and the 1955 Appropriations Act included a personal services limitation designed to put an end to the direct performance of construction and other activities by the Federal Government where private enterprise could do the same work or provide the same services under contract. The employment preference and job training commitments contained in the Long Range Act were thereafter disregarded in view of the fact that the Tribal Council itself, in 1954, formally requested that the authorized Long Range construction program be carried out under contract in the interest of accelerating the completion of necessary schools and roads. Although Federal construction contracts on the Reservation require the use of Navajo labor to the maximum extent possible, the level of Navajo employment on such projects has no doubt dropped to a lower level since 1954, although elimination of the job training aspects of the original long range rehabilitation program has been offset to some extent, since 1956, by the enactment of P. L. 959 authorizing the appropriation of Federal funds to support a vocational education and training program for Indians.

The need to find additional employment opportunities for Navajos outside the Reservation area increased further with the cessation of force account construction. A joint effort by the Bureau and the Tribe to develop industrial employment in or near the Reservation met with limited success, but in 1957 the opening of the Four Corners oil field changed the course of events in the Navajo Country. The level of Tribal funds available to the Navajo suddenly increased manyfold. The total amount was not sufficient to provide direct benefits to each member of the Tribe on a per capita or dividend basis, but invested in a variety of developmental programs the Tribal income could be used to provide jobs, services, welfare assistance not available from other sources, and other types of benefits to the Navajo people. The Tribe itself rapidly became a major employer on the Reservation and, in 1960, the burgeoning Tribal organization employed about 900 persons in jobs paying over $1,000 per year and an additional 4,900 in part time or occasional work capacities.

The construction and operation of pipelines, uranium mills, schools, clinics, hospitals, roads, and other Reservation developments have increased the number of employment opportunities on the Reservation during the course of the decade, but economic growth continues to lag behind the rapidly expanding population.

Within the span of one generation, that stratum in the traditional society once distinguished as the large stockowning class — the "ricos" of old — has declined to the vanishing point and their place has been taken by a new upper stratum, composed of people with steady employment by the Federal Government, the Navajo Tribe, the public schools or private industry operating in the Reservation area. Livestock has all but lost its position as the measure of wealth and affluence and money derived from steady wage work is rapidly replacing it as the modern measure. A generation ago, if one segment of the population is taken as a criterion, the wealthy stockowning class in Navajo society probably constituted about 15% of all families on the Reservation;[4] today, in 1960, less than one half of 1% of the Reservation families own 300 or more *sheep units* of stock. But today, an estimated[5] 20%-22% of all families living in the Reservation area enjoy regular annual incomes ranging from $1,600 to $15,000 per year, with a median perhaps as high as $4,000. This income derives from steady employment by the Federal Government, the public schools, the Navajo Tribe and private industry (uranium mills, pipelines, the gas companies, etc.) The new upper economic class has completely revolutionized the base upon which it rested a generation ago. At the same time, it embraces a greater number of individuals than it did 30 years ago, and the new upper economic class appears to include perhaps 5% to 7% more families, in proportion to the total population, than it included formerly. Although these factors reflect progress in the direction of improved living standards for the Reservation area, the economic advances made over the course of a generation have been offset to no small extent by a rapid parallel gain in population over the same period.

A generation ago the lowest economic stratum in Navajo society, comprising the aged, the blind, the disabled, the unwanted orphans and those people with few or no livestock, led a precarious existence. In 1915, an estimated 40% of the population in the Southern Navajo Reservation possessed livestock

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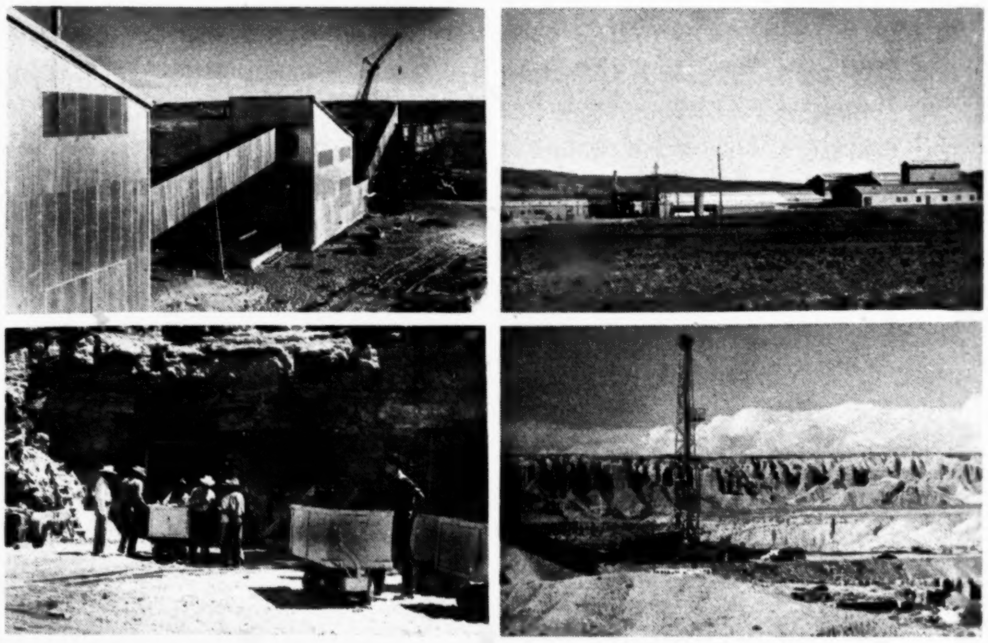
[4] A report made by Supt. Peter Paquette for the Southern Navajo Reservation (Fort Defiance Jurisdiction) in 1915 showed 2,400 families, of which 363 owned 301-1,200 or more sheep. If this is taken as constituting the upper economic stratum, then that group constituted 15% of the population of the Southern Navajo Reservation in 1915, a proportion that no doubt still obtained in 1930.

[5] The estimate is based on available information which, although inadequate, indicates that there are at a minimum, between 3500-4000 steady jobs filled by Navajos in the Reservation area. It is assumed that not less than 3,500 of the estimated 16,000 families using the Reservation area for all or a portion of their livelihood, base their living on such steady employment, including about 2,100 Federal jobs (Bureau of Indian Affairs and U. S. Public Health Service), about 650 regular (yearlong) Tribal jobs, and about 830 industrial jobs (mining and milling, pipelines, sawmills, pumping stations, public schools, etc.). The median Federal salary is about $4,300 per year for Navajo employees of the Bureau of Indian Affairs and the Public Health Service; gas company employees were paid an average of $4,600 each, and mill employees appear to average about $4,400 per year.



(Upper Left) New employment opportunities for Navajo workers were opened on the Reservation with the construction of Uranium Mills such as that near Tuba City (Rare Metals) and - - - - **(Upper Right)** The Texas-Zinc Mill at Mexican Hat. A third mill is operated by Kerr-McGee at Shiprock. **(Lower Left)** Navajos are employed in uranium mining, as well as in milling operations. **(Lower Right)** The oil and gas industry has operated on the Reservation since 1922, but the opening of new oil and gas fields in the Four-Corners area and in Northwestern New Mexico during the latter half of the 1950's increased local industrial employment opportunities for Navajos.

ranging downward from 25 sheep to none whatsoever.[6] The economy of this group was generally at a low level based on farming, herding for larger stockowners, and resources shared by more fortunate kinsmen. The very survival of many members of this segment of the population owed itself largely to the closely knit family — extended family — clan structure and sharing features of Navajo society.

In the course of a generation, the lot of this erstwhile least privileged class in Navajo society has undergone a radical change, and the group has emerged as a comparatively affluent segment of the population due to the operation of the Social Security program. Regular payments to Dependent Children, the Aged, the Blind, and the Handicapped, Old Age and Survivors Benefits, and other forms of welfare have elevated this otherwise underprivileged class from the bottom, economically, to a much more favorable position, and the sharing process in Reservation society

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[6] Op. cit.[4]. Supt. Paquette, in 1915, reported 40% of the 2,400 families in his portion of the Navajo Country as owners of 25 sheep or less, In fact, 24% of the total families in the Southern Reservation in 1915 owned no livestock at all.

has reversed its direction of flow *from* instead of *to* the segment of the population which is otherwise lacking in resources or capacity to gain its own livelihood! Welfare recipients now share *their* meager resources with less fortunate kinsmen who, as potential employables or for other reasons, are not themselves eligible for regular welfare benefits, but who are insufficiently trained to compete successfully for available steady employment.

A generation ago, about 45% of the families resident in the Southern Navajo Reservation[7] owned modest numbers of livestock, and derived their livelihood from agriculture and stockraising. Economically, they represented a middle group, merging into the upper class segment on the one hand, and into the least privileged or lowest group on the other. Today, an estimated 75% to 80% of the population in the Reservation area derives its livelihood from a combination of resources, including off-Reservation seasonal employment, railroad maintenance, part time or temporary jobs on the Reservation, stockraising, agriculture and welfare, including surplus commodities.

This large segment of the population compares in its middle and upper strata with the modest to wealthy income class of a generation ago, and in its lower strata with the least privileged class of a former time. The lower economic group looks to more fortunate kinsmen who receive regular salaries or welfare payments, or to kinsmen with other types of resources, for assistance in times of need, and the sharing process remains a feature of Navajo culture to the present day. In fact, the sharing of resources with less fortunate kinsmen exerts something of a leveling influence on the family income level of the more affluent segments of the population so far as actual distribution of individual income derived from salaries, wages or regular welfare payments is concerned.

As education advances, and as new developments take place in the Reservation area, the proportion of the population included in the upper economic class can be expected to continue to increase, limited principally by the availability of local employment opportunities. At the same time, with training, the large proportion of the population which presently lacks adequate resources on the Reservation or capacity for steady types of employment, can enhance its standard of living by resettlement away from the Reservation area, or by qualifying for *skilled* types of labor on and off the Reservation.

There has been progress in the improvement of Reservation living standards in the past decade, as noted above, but the economic level of the Reservation population remains low in contrast with that of the surrounding non-Indian people as evidenced by a report issued recently by the Bureau of Business Research, University of New Mexico,[8] reflecting average per capita incomes in McKinley County and in the State at large at $1,709 and $1,833 respectively. At the same time, the authors of the report in reference made an observation relating to the economic level of the population of the State of New Mexico that might, in large part, be applied to the Navajo Country.[9] They pointed out that "Although poverty has not been eliminated, apparently it has been appreciably reduced. Nevertheless, in 1958, more than one fourth of New Mexico's income units were receiving less than $1,000 in 1949 purchasing power. * * * * the State still has a long way to go before poverty is eliminated." So also the Reservation; many sweeping changes must take place before poverty can be eliminated from the scene.

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[7] Op. cit.[4]. Of 2,400 families in the Southern Navajo Reservation in 1915, 45% were reported as owning 26 to 300 sheep.

Actually, progress achieved over the course of the past decade in the direction of eliminating poverty from the Reservation, has many ramifications aside from the creation of new job opportunities. For example, education makes a direct as well as an indirect contribution to the economy of the Navajo people — immediate as well as deferred in terms of its benefits.

As the school construction program has moved forward over the course of the decade of the 1950's, the enrollment of Navajo children has increased more than 100% in 1959-60 over the number enrolled as recently as 1951-52 (27,400 aged 6-18 years in contrast with 13,135 eight years ago). Of this group, in 1960, about 18,000 children attended boarding schools located on and off the Reservation. The value of raw food provided for these children by the Federal Government is $189 each per year— a total of $3,402,000 worth of food in 1960 which Navajo families in all walks of life were not obliged to provide at home. Free medical services provided by the U. S. Public Health Service; free clothing, eye glasses and hearing aids provided by the Navajo Tribe; and other benefits accruing to Reservation residents contribute further to the complex economy of the Tribe.

The Tribal leadership is progressive and, in conjunction with Federal, State and other agencies, is making a continuing effort to improve the living standards of the Navajo People. In this

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[8] New Mexico Studies in Business and Economics, No. 8, entitled "Income and Employment in New Mexico, 1949-1959," by Ralph L. Edgel and Vicente T. Ximenes.

[9] Op. cit. supra. p. 12.

respect, the Executive Branch of the Tribal Government operates a wide variety of programs, authorized by the Tribal Council, and financed by budgeted appropriations of Tribal funds, designed to advance the Reservation economy. The new Tribal Forest Products Industry, the Tribal Utilities Authority and Tribal promotion of the proposed Navajo Irrigation Project are aspects of Tribal initiative in the field of economic development. In addition to the fostering of Reservation development, the Tribe has met emergency situations from time to time during the past decade through the appropriation of Tribal funds for purposes designed to provide necessary facilities and services on the Reservation and, at the same time, to create jobs for Navajo workers. These include the investment of $9,000,000 in Public Works Programs during the fiscal years 1958, 1959 and 1960; $1,710,000 in emergency livestock feed grain; and $5,264,200 in construction of Chapter Houses, Community Centers, court and jail facilities, a Youth Camp and a Tribal Ranger Station—a total of nearly $16,000,000, a large part of which found its way into the pockets of Navajo workers throughout the Reservation area. The availability of Tribal funds after 1957, and the decline in some types of off-Reservation employment during the period 1957-1961 had led the Tribal Council to step into the gap in an effort to bolster the sagging economy of a large segment of the population. In addition, during the same period, the expansion of Tribal service and administrative programs created new employment opportunities for skilled Navajo young people.

In the course of a generation Navajo economy, once primarily based on agriculture and stockraising, has become highly diversified, a process that gained great impetus during the decade of the 1950's. It has come to draw upon a wide variety of resources located outside as well as within the Reservation and, in recent years, permanent resettlement outside the Navajo Country has entered as an aspect of the Tribal economy. *It is difficult in most instances, and impossible in some, to obtain accurate data upon which to base estimates of individual income, and therefore such estimates must often fall into the category of guesses. They are provided here as indicators of the probable level and nature of the Reservation economy.*

Placement of Navajos: At the beginning of the decade of the 1950's the Arizona State Employment Service estimated 900 Navajos employed in Arizona in agricultural work and 590 employed in non-agricultural jobs, including the railroads. At this time total *Indian* employment in the State showed 5,050 in agricultural work and 1,210 in non-agricultural jobs. Over the course of the decade these numbers increased substantially and, in 1959, the

Arizona State Employment Service reported[10] the placement of 1,964 Navajos in agricultural work and 3,293 in non-agricultural jobs, representing 20% and 29% respectively of *all* Indian placements made by the Arizona service agency.

For the uneducated and the unskilled, seasonal agricultural work is made available through the State Employment Services. Jobs are also found by these agencies for skilled or semi-skilled workers.

The New Mexico State Employment Service reported the placement of 2,108 Navajos in agricultural work and about 2,000 in non-agricultural jobs during calendar year 1959.

Non-agricultural employment embraces a wide variety of jobs, of both short and relatively long duration. The category includes carpentry, mining, painting, auto mechanics, sawmill work, welding, dishwashing, laundry work, movie extras, fire fighting, waiting tables, and many other occupations. Some placements may last only one day; others may last for several days, weeks or even months. No accurate information is available in the form of an average value for each placement. However, of 11,315 placements of Arizona Indians in non-agricultural work in 1959, about 77% of the placements were in mining, contract construction, manufacturing, other public utilities, trade or government; the remainder were in private household or other service capacities. Of the total of 5,290 non-agricultural placements of Navajos reported by Arizona and New Mexico, it might be reasonable to assume that, as an average, at least half might have earned as much as $400 and, including the service placements, the remaining half of the non-agricultural placements might be valued at $100 each. The total value of non-agricultural placements would appear to be about $1,323,000.

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[10] Information provided in a letter of November 15, 1960, by the Labor Market Economist, Arizona State Employment Service. See also "Expanded Services to Arizona Reservation Indians" for 1957, 1958, 1959 — Publ. By Arizona State Employment Service.

Agricultural employment may be estimated on the basis of $6.00 per day for periods ranging from 6 to 12 weeks duration. If 40 days is taken as an average duration of such employment, the average value of an agricultural placement is $240.[11] In addition, a few Navajo workers enter agricultural employment independently of the Employment Service and an arbitrary $175,000 is added to represent wages earned by this group.

On the basis of the above criteria the total estimated value of non-agricultural and agricultural employment would appear to be about $1,323,000 and $1,368,000 respectively, to a grand total of about $2,691,000 for work secured by Navajos through the State Employment Services, including an estimated $175,000 for agricultural work secured by Navajo workers independently of the Employment Service.

Railroad Employment: During the period 1942-1957, inclusive, large numbers of Navajo workers were employed by the railroad industry throughout the western half of the United States. In 1955 the Employment Supervisor for the Santa Fe Railroad estimated the value of annual wages to some 6,571 Navajos employed by the Railroads at $8,000,000.[12] In addition there was an estimated $2,668,439 paid to Navajos in the form of Railroad Compensation.

In 1956, the Railroad Retirement Board reported 6,648 Navajos employed in railroad work, and earnings were again estimated at about $8,000,000 plus $2,165,000 in Railroad Unemployment Compensation. The much higher estimates provided by the Railroad Retirement Board for 1957 appear to have been much too high.

By 1957, the number of placements had declined to 4,939. In part this decline reflected a declining level of railroad maintenance activity; in part it reflected the increasing mechanization of railroad maintenance work; in part it reflected reduced turnover in maintenance personnel. During the early years of Navajo employment, workers did not remain long on the job, but following the war years the duration of railroad placements increased. In part, the increased duration of placements reflected economic need; in part it reflected the fact that Navajos were becoming more accustomed to this type of off-Reservation employment; and perhaps more important was the increasing selectivity of the employing railroads. Turnover in maintenance staff was costly, and the less stable employees were gradually eliminated, leaving a pool of experienced men with good work records.

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[11] Average earnings were estimated at $250 to $300 by representatives of the sugar beet growing industry at a meeting with Tribal and New Mexico State Employment Service officials on March 25, 1960.

[12] Estimate made by L. Hubbell Parker, Santa Fe Railroad Employment Supervisor, in an address given before the Transportation Club in Albuquerque, New Mexico, on November 8, 1955.

However, a slowing of the national economy in conjunction with mechanization of maintenance work and other factors caused a drop to 1,543 placements in 1958—a drop of nearly 70% under the previous year. At the beginning of the decade of the 1950's four men were required where only one was needed at the end of the decade, a fact which reflects the impact of mechanization on Navajo employment, although the loss is tempered to some extent by the fact that railroad wages during the same period increased from $1.36 per hour to $2.06 per hour.

In 1959, there were 2,268 placements (involving 1,666 individuals), and in 1960 the number of placements fell to 2,015 (involving 1,400 individuals). However, whereas there were 2,800 claimants for Railroad Unemployment Compensation in January, 1958, there were only 675 in January 1959 and 564 in January, 1960.

In 1960, the Railroad Retirement Board showed total wages paid to Navajo workers at $1,971,200 and Unemployment Compensation amounting to $1,255,800; the average duration of individual placements was four months in 1960, and average weekly earnings were $80.

At the close of the decade, railway employment had apparently stabilized and in the immediate future its contribution to individual Navajo economy will probably approximate the 1960 level.

The Uranium Mills: During the decade of the 1950's three uranium mills were constructed on the Navajo Reservation, including the Texas-Zinc Mill at Mexican Hat, Utah; the Kerr-McGee Mill at Shiprock, New Mexico and the Rare Metals Mill at Tuba City, Arizona. For 1959, the three mills employed an average of 230 Navajos (including Kerr-McGee mine employees), to whom they paid wages totalling $1,049,854. Although the future of the uranium industry is uncertain, it has made a heavy contribution to the Reservation economy throughout the decade of the 1950's, in the mining as well as in the milling operation.

The El Paso Natural Gas Company: Since 1950, the El Paso Natural Gas Company has invested many millions of dollars on the Reservation, and has been a major contributor to Navajo economy. In 1960, 135 Navajos were employed by this industry on a full time basis, with a total of $620,142.83 paid in wages — an average of nearly $4,600 per employee.

The El Paso Natural Gas Company was one of the first major industries to establish itself in the Navajo Country. Over the course of the decade El Paso constructed three, large diameter pipelines across 308 miles of Reservation land, with four compressor stations and a natural gasoline absorption plant. Labor for construction purposes was predominantly Navajo and, as noted above, many of the employees required for operation and maintenance purposes are members of the Tribe.

The first transmission pipeline was built during the period 1950-51, and in 1953 the Company obtained permission from the Navajo Tribe to build a 30-inch line, largely parallelling the original 24-inch line. In 1957, a third pipeline — 34 inches in diameter — was laid across the Reservation, paralleling the first two. All of these construction projects provided employment to hundreds of Navajo Workers.

The four compressor stations are known as the Gallup, Leupp, Navajo and Window Rock stations, and the natural gasoline absorption plant is located in the Aneth oil and gas field. The latter plant is designed to extract natural gas liquids (butanes, propane and natural gasoline) from the natural gas, and it is capable of processing up to 115 million cubic feet of gas per day. Additional facilities at Aneth include a 28,400 horsepower field compressor station, a dehydration unit for the removal of water vapor from the gas, and a depropanizer unit.

El Paso installations are model communities in the Reservation area, complete with comfortable homes for plant employees. The contribution to Reservation development made by this industry across the decade of the 1950's transcends the installations directly concerned with the processing and transportation of natural gas, and includes bridges, highways and airports for the construction of which the Company has contributed funds.

Cognizant of the value of archaeological remains uncovered in the course of excavations, the Company employed experts to assure their preservation, and artifacts so recovered are kept at the Museum of Northern Arizona (Flagstaff, Arizona) and at the Laboratory of Anthropology (Santa Fe, New Mexico).

Some of the natural gas delivered through the Company's pipelines is sold to schools and hospitals along the line and, like other industries operating in the Reservation area, El Paso is a substantial taxpayer, contributing to the operation of public schools serving Navajo children.[13]

The Surplus Commodity Program: Surplus commodities, secured from the Department of Agriculture, and made available on the Reservation by the State Departments of Public Welfare in Arizona and New Mexico, have assumed a position of importance in the Navajo economy. The State of New Mexico bears the cost of distribution in that portion of the Navajo Country lying in New Mexico, while the Navajo Tribe bears the cost of distribution to Arizona Navajos.

During 1960, a total of 2,317 Navajo persons (the average number of recipients on a monthly basis) received surplus commodities in New Mexico, valued at $54,774, and during the same year 12,566 (average monthly) Navajo persons received commodities valued at $298,474 in Arizona. The total value of the program to the Navajo economy is thus not less than $353,249 (and this total does not include Navajo families in Sandoval and Valencia Counties in New Mexico).

Relaxation of eligibility requirements by the Federal Government in 1961 has more than tripled the number of Navajos receiving surplus commodities. Thus, in March 1961, 2,481 persons (Navajo) in San Juan County and 4,837 persons (Navajo) in McKinley County, New Mexico, received such commodities, contrasting with 417 and 1,583 respectively in March, 1960.

Information available from the State Department of Public Welfare in Arizona indicates that about 9.5 lbs. of food per person, valued at $1.97, were distributed to eligible Navajos in the Reservation area.

The number of Navajo people who are partially or wholly dependent on Reservation resources is not known, but it is estimated at not less than 80,000. Individual income, with reference to this group, falls into three general categories, including (1) earned cash income, (2) unearned cash income, and (3) unearned non-cash income. The three classes would appear to have an aggregate value of about $51,600,000, of which 68.8% is earned cash, 11.8% is unearned cash and 19.3% is in the form of goods and services for which no charge is made. In the first category is income derived primarily from salaries and wages; in the second category is income stemming largely from Social Security and other types of welfare; and the last category includes the value

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[13] Based on information provided in a letter of December 29, 1960, by Robert W. Adams, Publicity Manager, El Paso Natural Gas Company, El Paso, Texas.

INDIVIDUAL NAVAJO INCOME
Estimated - 1960

SOURCE	AMOUNT	Percent All Earned Cash	Percent Total Income
A. Earned Cash Income:			
1. Payroll-Bureau of Indian Affairs(1)	$ 7,590,000	21.3	14.7
2. Payroll-U. S. Public Health Service(2)	1,607,842	4.5	3.1
3. Payroll-Navajo Tribe(3)	3,707,500	10.4	7.2
4. Payroll-Forest Products Industries(4)	666,581	1.9	1.3
5. Payroll-Glen Canyon Dam(5)	260,000	0.7	0.5
6. Payroll-Ordnance Depots(6)	1,110,000	3.1	2.2
7. Payroll-Uranium Mills(7)	1,049,854	3.0	2.0
8. Payroll-Reservation Mining(8)	1,000,000	2.8	1.9
9. Payroll-Natural Gas Companies(9)	700,000	2.0	1.4
10. Payroll-Public Schools(10)	389,270	1.1	0.7
11. Wages-Off-Res. Agric. Employment(11)	1,368,000	3.8	2.6
12. Wages-Off-Res. Non-Agric. Employment(12)	1,323,000	3.7	2.6
13. Wages-Railroad Employment(13)	1,971,200	5.5	3.8
14. Wages-Tribal Public Works(14)	4,000,000	11.3	7.[illegible]
15. Wages-Shallow Well and Spring Development(15)	786,000	2.2	1.5
16. Railroad Unemployment Compensation(16)	1,255,800	3.5	2.4
17. Res.Agric. & Stockraising (Sold & Consumed)(17)	3,950,000	11.1	7.7
18. Sales-Arts & Crafts(18)	500,000	1.4	1.0
19. Mineral leases (allotted lands) (19)	803,178	2.3	1.6
20. Miscellaneous(20)	1,500,000	4.2	2.9
Sub-total	$35,538,225	100	68.8

of schoolchildren's clothing provided by the Tribe, services provided free of charge to Navajo beneficiaries by the Public Health Service, etc.

On the basis of total cash income aggregating $41,656,600, the average per capita would appear to be about $521. On the premise that the average family comprises five members, *average* family income would appear to approximate $2,600. If the value of free goods and services is included, bringing total individual income to $51,624,205, the average per capita rises to about $645 and average family income rises to about $3,225 per year. As explained in preceding paragraphs, little is known about the *distribution* of individual income.

SOURCE	AMOUNT	PERCENT ALL UNEARNED CASH	PERCENT TOTAL INCOME
B. Unearned Cash Income:			
1. Social Security-Categorical Aid (21)	$ 3,000,000	49.0	5.8
2. General Welfare Assistance (22)	363,552	5.9	0.7
3. Tribal Scholarships (23)	254,823	4.2	0.5
4. Old Age & Survivors Insurance (24)	2,500,000	40.8	4.8
Sub-total	$ 6,118,375	100	11.8

SOURCE ---	AMOUNT	PERCENT ALL UNEARNED-NON-CASH	PERCENT TOTAL INCOME
C. Unearned Non-Cash Income:			
1. Tribal Welfare - Various (25)	$ 926,086	9.3	1.8
2. Schoolchildren's Clothing (26)	750,000	7.5	1.5
3. Value Raw Food - Boarding Schools (27)	3,428,270	34.4	6.6
4. Tribal Emergency Livestock Feed (28)	510,000	5.1	1.0
5. Surplus Commodities (29)	353,249	3.5	0.7
6. Value Free Health Services - PHS (30)	4,000,000	40.1	7.7
Sub-total	$ 9,967,605	100	19.3
GRAND TOTAL	$51,624,205		

The estimated average per capita income described above for Navajos resident in the Reservation area compares with $1,812 estimated[14] for the State of New Mexico generally, $1,709 for McKinley County, New Mexico, and $2,166 for the nation. Even with inclusion of the value of free services, the average per capita income of Navajos in the Reservation area is only 35.6% of the comparable amount received, on an average per capita basis, by other citizens of New Mexico, and it is only 29.8% of the comparable amount received by fellow citizens of the United States.

The lower income received by residents of the Reservation area reflects in lower living standards, especially in contrast with those of the urban population. The Reservation population remains predominantly rural, while that of the State and the nation is largely urban. The income level of the population in the Reservation area is not likely to rise significantly in the absence of an urban movement either on or off the Reservation, and for the majority of those Navajos whose motivation lies in the direction of adopting the standards and practices they learned in school, migration from the Reservation area will no doubt remain a necessity for many years to come.

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[14] See New Mexico Studies in Business and Economics, No. 8, by Ralph L. Edgel and Vicente T. Ximenez, Publ. by Bureau of Business Research, University of New Mexico; pp. 4, 38, 56.

As noted in preceding paragraphs, an *average* individual or family income figure has little value as an indicator of the actual economic level of the Reservation area beyond the fact that it offers a basis for comparison with the surrounding states or with

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(1) Based on information provided by the Gallup Area Branch of Personnel, showing a total of 1,725 Navajos employed by the Bureau of Indian Affairs in the Gallup Area with a total payroll of $7,590,000. The average salary is about $4,400, and the range is about $3,500-$8,000.

(2) Based on information provided by the U.S.Public Health Service, showing 382 Navajo employees with a total payroll of $1,607,842. Average salary is $4,209.

(3) Based on a report by the Tribal Controller showing a total of 903 employees earning $2,815,000 and 4,900 earning $892,500 to a total of $3,707,500.

(4) Based on a report by the Controller, Navajo Forest Products Industries showing $67,388 paid to 125 Navajo construction workers; $182,281 paid to an average of 55 Navajos employed in log production; $338,394 paid to an average of 168 Navajos employed in lumber production; and $78,517 paid to five Navajo operators employed in contract log hauling, to a grand total of $599,193. Of the 353 employees or jobs involved about half were steady jobs.

(5) In fiscal year 1960, there were an average of 70 Navajos employed by various contractors at Glen Canyon, with payroll aggregating about $260,000. A strike held up construction work for half of the 12-month period, but work has been resumed, and Navajo payroll in fiscal year 1961 should approximate $520,000. Laborers on the project earn $3.52/hr. for a 40-hour week.

(6) The Navajo Ordnance Depot reported the employment of 51 Navajos in fiscal year 1960, with a payroll of $241,626, in contrast with 88 employed at that installation in 1958. The Marine Corps Supply Center at Barstow, California reported 67 Navajos on the payroll during calendar year 1960, with payroll aggregating $354,641 (an average of $5,293 each). The total number of Navajos employed in 1958 was 91 - a drop of 26% under the 1958 level. Fort Wingate Ordnance reported 69 Navajos on the payroll, with wages totalling $312,997.50. No report is available from one depot. Total income from ordnance work is estimated at $1,110,000 for 1960.

(7) Based on exact information supplied by the three Reservation mills: the Texas-Zinc Mill near Mexican Hat, Utah, reported an average of 51 Navajos employed, with a payroll of $245,356 during a 12-month period ending November 1, 1960; the Kerr-McGee Mill at Shiprock, New Mexico, reported an average of 124 Navajos on the payroll in calendar year 1960, including miners, with average earnings of $367 per month; the Rare Metals Mill at Tuba City reported 55 Navajos employed with a payroll of $258,498 in calendar year 1960. At least half of the mill employees are in the category of steady workers.

(8) Based on information available in 1958.

(9) Based on exact information from El Paso Natural Gas Company reflecting a payroll in 1960 of $620,142 to 135 full-time Navajo employees, and on information available in 1958 with respect to other gas company employment.

(10) Based on information provided by the Public Schools in the Reservation area, reflecting the following employment pattern: 145 Navajos (including 18 Navajo teachers) employed in regular capacities and/or earning more than $1,000 in 1960; and 28 Navajos employed in irregular or part time work earning less than $1,000 each in 1960. Total payroll to Navajos reported by the Public Schools was $389,270. The proportion of Navajos employed varies with the location of the school plants: those located within the Reservation employ large numbers of Navajo workers; those situated near non-Navajo communities employ fewer Navajos.

(11) See "Placement of Navajos" in text.

(12) See "Placement of Navajos" in text.

(13) See "Railroad Employment" in text.

(14) In fiscal year 1960, the Navajo Tribe appropriated $5,000,000 for the Tribal Public Works Program. Actually, the amount appropriated was $5,313,245, and to this sum was added $97,000 carried over from the 1959 budget for Public Works purposes. About $500,000 was carried over in the 1961 budget for Public Works. In some communities Public Works money was used for the purchase of equipment and did not reflect in direct income to Navajo workers. However, $4,000,000 is taken as a reasonable approximation of the value of wages paid from this source.

(15) Based on analyses provided in the 1960 and the 1961 Tribal budgets.

(16) The total as reported by the Railroad Retirement Board for calendar year 1960.

(17) Based on an estimate prepared by Navajo Agency Branch of Land Operations in 1956. A more recent estimate is not available. The figure used includes $2,249,000 in sales of wool, mohair and livestock, and $1,702,000 as the value of agricultural and livestock products consumed at home.

(18) Based on information available in 1958. (See Navajo Yearbook, Report No. VII, p. 105).

(19) Based on exact information made available by Navajo Agency Branch of Realty. Income from bonuses, rentals and royalties on allotted lands rose to nearly $2¼ million in 1958, but by 1960 it had declined to only $803,178, as shown.

the national population, and even then the comparison is of doubtful validity in view of the dissimilarities that attach to the Reservation population in contrast with their non-Indian neighbours. There is little basis upon which to estimate income *distribution* in the Reservation area beyond the probability that about 22% of the estimated 16,000 Navajo families earn from $1,200 to $15,000 per year — with a median at about $4,000 — from steady employment. With an average family of five members, the average per capita *earned* income of the upper stratum would approximate $800 per year, or about one half that reported for the State of New Mexico. To this would be added the value of

(20) An arbitrary guess, representing the income of about 50 Navajo businessmen, oil field workers, construction workers, the value of arts and crafts sold outside the Reservation, and all other sources of income not covered categorically in the summary table.

(21) Based on reports provided by the State Departments of Public Welfare.

(22) As reported by Navajo Agency, Branch of Welfare.

(23) The scholarship fund is financed from interest accruing on $10,000,000 of Tribal funds on deposit in the Treasury of the United States, yielding $400,000 per year. The amount of such funds used in a twelve-month period April 1960 - April 1961 was $254,823.

(24) An estimate based on available (inadequate) data.

(25) Based on funds budgeted by the Navajo Tribe in fiscal year 1960, including Irrigation O&M, purchase of eyeglasses and prosthetic devices, purchase of housing for the blind, the disabled and the convalescent tuberculars, layette purchases, certain services to stockowners, etc.

(26) The amount budgeted in 1960 for the purchase of clothing for schoolchildren.

(27) Based on the allowance of $189 per pupil enrolled in Bureau Boarding Schools, for the purchase of raw food.

(28) Based on Tribal budgetary allowance.

(29) Based on data available from the State Departments of Public Welfare.

(30) Based on an estimate by the Public Health Service.

a share of Federal and Tribal benefits including schoolchildren's clothing, food served in boarding schools, surplus commodities, etc.

About 10% of the Navajo population in the Reservation area,[15] including the aged, blind, dependent children and the disabled, are principally or entirely dependent upon welfare for subsistence. The members of this group received annual payments ranging from an average of $294 for Dependent Children to $658 and $655 respectively for the Aged and the Needy Blind. (Of the group involved, about 25% are the Aged and Blind, and nearly all of the remainder are the Dependent Children). The *average* annual per capita income of this Welfare group appears to be about $391 from Welfare sources.

These people, with the remainder of the population in the Reservation area, comprising about 78% of the entire population, share most of the remaining estimated income. The range no doubt extends from a level well below that of the Welfare group[16] to a level approximating that of the upper income group, with heavy dependency on surplus commodities, the value of raw food served to boarding schoolchildren, the value of livestock and agricultural products, part time employment, etc.

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[15] About 3,700 cases, involving about 7,800 persons, are carried on the welfare rolls and receive categorical aid paid through the State Departments of Public Welfare in Arizona, New Mexico and Utah.

[16] Cf. the socio-economic study carried out in the Many Farms area by Dr. Tom Sasaki.

Obviously, as pointed out in preceding paragraphs, there is no clearly defined dividing line setting off the several economic strata in the Reservation society. So far as the categories themselves are concerned, they merge one into the other — some recipients of Welfare also own livestock, nearly all receive surplus commodities, or have additional meager resources. In some instances, less fortunate kinsmen move in to live with Welfare recipients or with persons receiving steady income from salaries. In either case, the immediate value of average per capita income for individual wage earners or welfare recipients and their immediate dependents is reduced as a result of such sharing with less fortunate relatives.

The Relocation Services Program: The Relocation Program of the Bureau of Indian Affairs is designed to facilitate the voluntary resettlement of Navajo and other Indian families from reservation areas to industrial regions where wage employment opportunities are more readily available. It is one aspect of a broad program aimed at relieving the pressure on Reservation resources and improving the living standards of members of the Navajo and other Indian tribes.

Although the Relocation Services Program was initiated in 1952, the idea and the recommendation for such an effort had been made more than 24 years previously by the Meriam Committee, at which time it was incorporated in the monumental report entitled "The Problem of Indian Administration." This committee, in 1928, pointed out that "social and economic forces will inevitably operate to accelerate the migration of Indians from the reservations to industrial communities." The Meriam Committee recommended that the Bureau of Indian Affairs keep itself informed about the conditions surrounding these "migrated" Indians as a basis for the adaptation of educational and other programs to meet the needs of future migrants. In fact, with reference to reservations possessing meager resources, the Committee hazarded the recommendation that it might "even prove advisable for the Government deliberately to adopt a policy looking toward expediting this movement to such industrial communities as afforded fullest opportunities for labor and development."

So far as the Navajo Tribe was concerned at the time of the Meriam Survey, the recommendation was anachronous. Few members of the Tribe had gone to school; few possessed saleable job skills of any kind; and few indeed had experience in living outside the Reservation area. Aside from these facts, the national depression of the 1930's struck a few years after the publication of the Meriam Report, and no job opportunities were available even though Navajo workers might have been able to fill them.

The national economy had barely succeeded in reestablishing itself when World War II broke out. Although no effort was made during the war years toward permanent resettlement of Navajo workers outside the Reservation area, the labor vacuum that developed in a number of industries throughout the West led to widespread emigration of Navajo workers from the Navajo Country to take advantage of work opportunities. At first, Navajo migrants looked upon off-Reservation work as a temporary expedient, and the turnover in such workers was great. However, as the years passed, the migrants gained experience in living away from the familiar Reservation environment and the duration of periods of employment lengthened. In fact, hundreds of wartime emigrants from the Navajo Country remained in industrial work in coastal cities even after the end of the war, and many of this early group remain there to the present day.

After 1952, the Bureau of Indian Affairs shifted the responsibility it had previously borne for the placement of Navajo and other Indian workers to the State Employment Services and to the Railroad Retirement Board, and directed its attention to the promotion of a program designed to facilitate the permanent relocation of reservation individuals or families on a voluntary basis.

On the Navajo Reservation, the Relocation Services Program of the Bureau maintains a headquarters office at Window Rock, and offices at each of the five Subagency headquarters. It is the function of the Relocation Services staff to counsel with and assist Navajos who voluntarily seek such assistance toward resettlement outside the Navajo Country where industrial employment is available. Experience gained since inception of the program has led the Bureau to accept for Relocation assistance only those candidates who meet minimum standards relating to health, education, acculturation and other criteria.

The expense of moving their families and household goods from the Reservation to the place of employment, coupled with the problems of job hunting and becoming settled in a distant community would prove to be a deterrent to most Navajos, otherwise desirous of leaving the Reservation. It is the function of the Relocation Program to provide necessary funds to cover the expense of moving, as well as to assist resettled families to locate housing, schools, sources of medical care, and employment in the strange cities to which they elect to go. At the receiving end, the Bureau maintains Field Relocation Offices situated in eight cities; Los Angeles, San Francisco, Oakland and San Jose, California; Denver, Colorado; Dallas, Texas; Chicago, Illinois; and Cleveland, Ohio.

As an aid in surmounting the obstacle posed by lack of vocational skills on the part of persons otherwise capable of entering industrial employment, the Bureau broadened the scope of its services after November 1957, to include an adult vocational training program. A wide variety of vocational training courses are available in the aforementioned cities, and the Branch of Relocation Services underwrites the cost of transportation to the training location, as well as living expenses of trainees during the training period. The period may not exceed two years, and following its completion the individuals involved are assisted in finding employment. Some receive their training in cities located near the Reservation, where employment opportunities may not be readily available. In the event that employment cannot be found locally, such persons are assisted to resettle in areas or communities where there is a demand for the particular skills they have acquired.

In addition to the relocation of Navajos to the more remote areas of industrial employment, the Branch of Relocation Services has cooperated with the Industrial Development program to assist Reservation people to establish themselves in communities surrounding the Reservation where various industries were established. In this connection funds were provided by the Branch of Relocation Services to cover the cost of on-the-job training for Navajo employees. With one exception these industrial developments were unable to survive. (See section on Development of Industrial and Business Enterprises.)

During the first three years following the inception of the Relocation program, a large amount of effort was devoted to the problem of gaining popular understanding and support among the Navajo people. In the first year of the operation, only 22 Navajos accepted the assistance of the Bureau in resettling away from the Reservation area. Thereafter, there was a progressive increase in the number of Navajo people who decided to leave the Navajo Country and, in 1953 one hundred forty (140) persons departed. A year later, in 1954, there were one hundred ninety-eight (198); in 1955 there were one hundred eighty-seven (187); in 1956 there were five hundred thirty (530) (excluding three hundred forty-seven (347) who accepted steady section work on the Union Pacific Railroad); and in 1957, the peak year, eight hundred forty-eight (848) Navajos relocated from the Reservation (excluding fifty-eight (58) who accepted steady employment with the railroads and fifty-six (56) who entered industrial employment under the Tribal Industrial Development Program.)

The business recession that began in the fall of 1957 slowed the program somewhat and only four hundred thirty one (431) Navajos relocated in 1958 (including fifty-six (56) to bordertown industries) four hundred twenty eight (428) in 1959 and four hundred eighty nine (489) in 1960.

However, by 1957 the confidence of the Navajo people and of its leadership had been largely won. Under the able leadership of its Chairman, Hoskie Cronemeyer, the Tribal Council Committee on Relocation has been highly active in recent years, periodically inspecting areas of relocation, meeting with resettled Navajos and providing accurate, unbiased reports to the Tribal Council as well as constructive criticism to the Bureau.

Although the rate of return has been about 35% during the period 1952-1960, inclusive, a total of 3,273 persons, including 555 families and 1,029 single persons, have left the Reservation for resettlement purposes, and of this total more than 2,000 remain at the point of relocation. Barring unforeseen developments in the Reservation area in the near future, migration from the Reservation will continue its upward trend in the next decade, recapitulating the farm-to-city movement of non-Navajos in the recent past.

The Relocation and Adult Vocational Training programs are summarized in the following tables[17]:

NAVAJO RELOCATIONS - - RESERVATIONWIDE
BY FISCAL YEAR 1952 - 1960

	SINGLE		FAMILIES		TOTAL		PERCENT RETURN	
YEAR	MEN	WOMEN	UNITS	PERSONS	UNITS	PERSONS	UNITS	PERSONS
1952	8	0	6	14	14	22	60	50
1953	38	7	21	95	66	140	46	42
1954	32	9	36	157	77	198	36	44
1955	49	7	30	131	86	187	33	33
1956	151	9	99	370	259	530	40	35
1957	231	25	149	592	405	848	36	33
1958	139	10	75	282	224	431	39	40
1959	177	13	71	238	261	428	30	32
1960	204	27	68	258	299	489	36	33
TOTAL	1029	107	555	2137	1691	3273	36.5	35.3

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[17] Prepared for the Yearbook by Mr. Robert Cullum, Area Relocation Specialist, Gallup Area Office.

COMPARATIVE ANALYSIS OF TRAINING EXPERIENCE
NAVAJO TRAINEES UNDER PL959
F.Y. 1958 - 1960

	NUMBER	PERCENT
COMPLETED TRAINING	148	58
DROPPED OUT OF TRAINING	75	29
STILL IN TRAINING 3/31/61	32	13
ALL	255	100
COMPLETED TRAINING	148	100
EMPLOYED	118	80
UNEMPLOYED	17	12
MARRIED	2	1
MILITARY SERVICE	5	3
STATUS UNKNOWN	6	4
COMPLETED TRAINING AND EMPLOYED	118	100
IN FIELD OF TRAINING	99	84
RELATED FIELD	5	4
OTHER	14	12
DROPPED OUT OF TRAINING	75	100
EMPLOYED	24	32
UNEMPLOYED	18	24
MARRIED	8	11
MILITARY SERVICE	4	5
DECEASED	2	3
FURTHER TRAINING	2	3
EMPLOYMENT STATUS UNKNOWN	17	22
DROPPED OUT OF TRAINING AND EMPLOYED	4	100
IN FIELD OF TRAINING	3	75
RELATED FIELD OF TRAINING	0	0
OTHER	1	25

TOTAL RELOCATIONS BY SUBAGENCY
NAVAJO
F.Y. 1952 - 1960

	SINGLE		FAMILIES		TOTAL	
	Men	Women	Units	Persons	Units	Persons
CHINLE	156	6	73	283	235	445
CROWNPOINT	227	36	205	793	468	1056
FT. DEFIANCE	306	25	113	456	444	787
SHIPROCK	152	18	60	228	230	398
TUBA CITY	188	22	104	377	314	587
TOTAL	1029	107	555	2137	1691	3273

TOTAL RELOCATIONS BY DESTINATION
NAVAJO
F.Y. 1952 - 1960

	NUMBERS				ALL UNITS			
	Single Persons		Family Units		Numbers		Percent Returned	
	Male	Female	Units	Pers.	Units	Persons	Units	Persons
CHICAGO	117	16	47	186	180	319	42	35
CLEVELAND/1	12	1	1	3	14	16	14	12
DALLAS	63	5	44	197	112	265	39	40
DENVER	101	15	69	239	185	355	29	25
LOS ANGELES	412	51	242	992	705	1455	35	36
BAY AREA /2	247	14	107	371	368	632	35	38
OTHER /3	77	5	45	149	127	231	28	32
TOTAL	1029	107	555	2137	1691	3273	35	35

/1 Opened Fiscal Year 1958.

/2 Offices located in Oakland, San Francisco and San Jose serve the Bay Area.

/3 "Other" prior to fiscal 1955 primarily mining camps in Arizona and Utah. Also includes relocation to Cincinnati and St. Louis Offices which operated during fiscal years 1957, 1958 and 1959.

PL959 TRAINING EXPERIENCE BY SUBAGENCY
F.Y. 1958 - 1960

	CHINLE	CROWNPOINT	FT.DEFIANCE	SHIPROCK	TUBA CITY	TOTAL
COMPLETED TRAINING	15	69	35	20	9	148
NOW EMPLOYED /1	14	59	22	16	7	118
IN FIELD OF TRAINING	14	47	17	16	5	99
RELATED TO FIELD OF TRAINING	0	4	1	0	0	5
OTHER	0	8	4	0	2	14
UNEMPLOYED	0	8	5	2	2	17
MARRIED	1	0	0	1	0	2
MILITARY SERVICE	0	1	3	1	0	5
EMPLOYMENT STATUS NOT KNOWN	0	1	5	0	0	6
DROPPED OUT OF TRAINING	13	25	23	11	3	75
NOW EMPLOYED /1	4	6	9	4	1	24
IN FIELD OF TRAINING	3	1	6	1	1	12
RELATED TO FIELD OF TRAINING	0	2	1	1	0	4
OTHER	1	3	2	2	0	8
UNEMPLOYED	2	8	5	1	2	18
MARRIED	1	5	1	1	0	8
MILITARY SERVICE	0	2	1	1	0	4
DECEASED	0	0	0	2	0	2
FURTHER TRAINING /2	0	1	1	0	0	2
EMPLOYMENT STATUS NOT KNOWN	6	3	6	2	0	17
STILL IN TRAINING	7	9	14	0	2	32

/1 As of 3/31/61
/2 Not at Government Expense

DESTINATION OF PL959 TRAINEES BY SUBAGENCY
F.Y. 1958 - 1960

	CHINLE	CROWNPOINT	FT.DEFIANCE	SHIPROCK	TUBA CITY	ALL SUBAGENCIES
ALBUQUERQUE, N.M.	3	30	26	7	0	66
CHICAGO, ILL.	19	23	23	8	6	79
CLEVELAND, OHIO	0	0	3	4	3	10
DALLAS, TEX.	5	7	4	2	0	18
DENVER, COLO.	0	14	9	2	1	26
LOS ANGELES, CALIF.	2	23	4	5	1	35
OAKLAND, CALIF.	3	4	3	0	3	13
SAN FRANCISCO, CALIF.	2	2	0	3	0	7
PHOENIX, ARIZ. /1	1	0	0	0	0	1
TOTAL	35	103	72	31	14	255

/1 Eligibility limited to Navajo applicants who desire to practice a licensed trade in Arizona.

PERSONS ENTERING ADULT VOCATIONAL TRAINING
UNDER PL959 BY SUBAGENCY
F.Y. 1958 - 1960

NAVAJO AGENCY SUBAGENCIES	1958		1959		1960		TOTAL 3 YEARS		
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	TOTAL
CHINLE	10	4	10	1	4	6	24	11	35
CROWNPOINT	10	5	28	11	23	26	61	42	103
FT.DEFIANCE	4	9	18	16	9	16	31	41	72
SHIPROCK	2	1	9	4	6	9	17	14	31
TUBA CITY	1	1	1	2	7	2	9	5	14
AGENCY TOTAL	27	20	66	34	49	59	142	113	255

COURSE OBJECTIVES OF NAVAJOS ENTERING PL959 TRAINING
F.Y. 1958 - 1960

TRAINING OBJECTIVES	CHINLE	CROWNPOINT	FT.DEFIANCE	SHIPROCK	TUBA CITY	TOTAL
AUTOMOTIVE AND AIRCRAFT MECHANICS	(3)	(9)	(6)	(4)	(0)	(22)
AUTO MECHANIC	2	6	6	1	0	15
AUTO AND DIESEL MECHANIC	1	2	0	3	0	6
AUTO BODY AND FENDER REPAIRMAN	0	1	0	0	0	1
COMMERCIAL SUBJECTS	(8)	(38)	(44)	(7)	(4)	(98)
ACCOUNTANT GENERAL	1	3	0	0	0	4
BOOKKEEPER	1	3	4	0	0	8
BUSINESS MACHINE OPERATOR	1	0	0	0	0	1
CLERK, GENERAL OFFICE	2	9	11	0	0	22
SECRETARY	2	1	22	1	1	27
STENOGRAPHER	1	22	4	6	3	36
COMMERCIAL ART AND LETTERING	(2)	(1)	(1)	(0)	(0)	(4)
COMMERCIAL LETTERING	0	1	1	0	0	2
SIGN PAINTING	2	0	0	0	0	2
DRAFTING	(0)	(9)	(3)	(1)	(0)	(13)
MAP DRAFTING	0	9	3	1	0	13
ELECTRICAL TRADES	(0)	(2)	(4)	(2)	(1)	(9)
INDUSTRIAL ELECTRONICS	0	1	0	0	1	2
REFRIGERATION	0	0	1	0	0	1
RADIO AND TELEVISION REPAIRMAN	0	0	1	2	0	3
ELECTRICAL APPLIANCE REPAIRMAN	0	1	2	0	0	3

COURSE OBJECTIVES OF NAVAJOS ENTERING PL959 TRAINING
F.Y. 1958 - 1960

TRAINING OBJECTIVES	CHINLE	CROWNPOINT	FT.DEFIANCE	SHIPROCK	TUBA CITY	TOTAL
MEDICAL AND DENTAL SERVICE TRADES	(2)	(0)	(4)	(4)	(0)	(10)
DENTAL ASSISTANT	0	0	0	1	0	1
LABORATORY TECHNICIAN	0	0	1	0	0	1
PRACTICAL NURSE	2	0	3	3	0	8
METAL WORK TRADES	(8)	(27)	(7)	(9)	(7)	(58)
MACHINE SHOP	1	0	2	0	0	3
TOOL AND DYE MAKER	0	1	0	1	0	2
WELDER	7	26	5	8	7	53
NEEDLE TRADES	(1)	(0)	(0)	(2)	(0)	(3)
PROFESSIONAL DRESSMAKING	0	0	0	2	0	2
POWER SEWING MACHINE	1	0	0	0	0	1
PERSONAL APPEARANCE TRADES	(4)	(13)	(3)	(1)	(1)	(22)
BARBER	1	2	0	1	0	4
COSMOTOLOGIST	3	11	3	0	1	18
MISCELLANEOUS TRADES	(7)	(4)	(3)	(1)	(1)	(16)
COOKING AND BAKING	4	0	1	0	0	5
DRY CLEANING	0	0	0	1	0	1
HEAVY EQUIPMENT OPERATOR	2	1	2	0	0	5
LANDSCAPE HORTICULTURE	0	1	0	0	0	1
UPHOLSTERY	1	0	0	0	1	2
WATCH AND CLOCK REPAIRMAN	0	2	0	0	0	2
TOTAL	35	103	72	31	14	255

Revolving Loan Fund

At the beginning of the decade of the 1950's, oil production on the Navajo Reservation totalled 133,173 barrels from 51 wells, in contrast with 34,272,928 barrels from 860 producing wells ten years later in 1960, and the level of Tribal funds was proportionately small during the earlier portion of the period. The Tribe lacked the resources with which to finance an adequate revolving credit program to meet the urgent need in this respect on the part of its members. Since the title to the Reservation land is vested collectively in the Tribe, for which it is held in trust by the Federal Government, it could not be mortgaged or encumbered by individuals or by the Tribe to guarantee loans from commercial sources. Only the trust allotments lying outside the Reservation proper can be mortgaged or sold, with the approval of the Secretary of the Interior. As a result of these circumstances, sources of commercial credit were not generally available with which to finance social and economic improvements on the Reservation. Even Navajo veterans were unable to secure loans under the "GI Bill" on a par with non-Indian veterans.

To offset the disadvantages suffered by Navajos resident on the Reservation, Congress included in the Long Range Act (P.L. 81-474) an authorization for the appropriation of $5,000,000 to finance a revolving credit program aimed at assisting Navajo (and Hopi) Indians to become self-supporting through the operation of business enterprises and otherwise.

The Tribe had made an initial effort in this direction as early as 1948, at which time a small scale revolving credit program was established, utilizing sawmill funds as capital, and administered by the Advisory Committee under CFR 25, Part 21 (now 25 CFR 91). Delinquency in re-payment of loans made it necessary for the Tribal Council to adopt an ordinance naming the General Superintendent of Navajo Agency as attorney in fact for the Tribal Credit Committee, and empowering him to repossess property purchased with loan funds when such action became necessary to secure repayment. The Advisory Committee continued to function as the Credit Committee until 1950 when the Council created a Loan Committee to conduct the program.

On September 8, 1949, the Advisory Committee authorized the filing of an application for a loan in the amount of $500,000 from the United States, and this sum was made available in eight separate allotments during the period January 5, 1950 to June 27, 1951, at 1% interest. Subsequently, on June 6, 1952, the Navajo Tribe borrowed an additional amount of $200,000 for loan purposes, at 2% interest. In addition to the $700,000 borrowed from the United States, the Tribe invested $44,000 of Tribal treasury funds in the Revolving Credit Program during the period 1950 to 1953. During the same years, $393,443 of local Tribal funds was used for various enterprise and other loan purposes, including $100,000 utilized for drouth relief. Also, $49,000 of Tribal treasury funds was invested in Tribal enterprises between 1950 and 1953. During the period 1953 to 1955, the $393,443 in reference above was withdrawn from the lending program, but subsequently, from 1955 to 1961, the Tribe again invested a total of $395,244 of local Tribal funds in Tribal enterprises.

During the period 1950-54, loans to a value of $461,991.48 were made to individuals by the Tribe, and $738,973 was loaned to Tribal Enterprises. However, collection of delinquent accounts remained a problem, and the necessity to improve credit procedures led to a temporary halt in the program in 1954 pending the development of more stringent regulations to govern its administration.

New regulations were drafted cooperatively by the Bureau and the Tribe, and these were formally approved by the Tribal Council on June 24, 1955. Subsequently, the Advisory Committee proceeded to revise the Plan of Operation to reflect the new regulations, and the revolving credit program was reopened. Interest rates for operating loans were raised from 3% to 5%; rates on Enterprise loans were increased from 3% to 4%; and those pertaining to educational loans remained at the 2% level previously established.

Under the present regulations and procedures, approved by the Bureau and the Navajo Tribe, the loan program is administered by loan committees operating at two levels (1) the Local Loan Committees which review and screen applications at a District level; and (2) the Central Loan Committee, composed of three members of the Tribal Council whose responsibility it is to review applications and, if acceptable, forward them to the General Superintendent with a recommendation for approval.

During the decade of the 1950's, the Navajo Tribal Revolving Credit Program has made a significant contribution to economic development on the Reservation. Individual members of the Tribe have used this source of credit for a variety of productive purposes, including home improvement, the purchase of farm machinery, livestock and land. During the period 1950-61 inclusive, a total of 1,196 loans were made to individuals to a total value of $1,322,968, while $844,449 was loaned to Tribal

Enterprises—a total of $2,167,417 in credit during the 10-year period with a capital fund of only $744,000.

During the same period, 830 of the 1,196 individual loans have been paid in full, and 69 such loans with an aggregate value of $25,518, have been charged off. There remains an outstanding balance of $469,601 in 241 individual loans and $216,430 in 6 Tribal Enterprise loans, with $103,577 in the form of cash on hand at the close of fiscal year 1961. Thus, during the period in reference, $1,322,968 has been repaid by borrowers, and only $25,518 has been charged off. At the same time, interest totalling $203,813 has been paid by borrowers over the course of the 10-year period and this revenue has been sufficient to pay $9,000 per year in interest to the Federal Government on the $700,000 borrowed by the Tribe from this source for credit purposes, as well as to pay the salary of a secretary and absorb the loss from uncollectible loans.

Unfortunately, expansion of loan capital has not remained abreast of the increasing need and demand for credit and, at the beginning of fiscal year 1960, there remained on hand only $132,809.84 and this amount was committed for loans already made. An estimated $2.5 to $3 million are needed to adequately support an effective Reservation loan program, including credit for the purchase of livestock and livestock permits, housing improvements, farm equipment, enterprise development, etc. Even more credit will be required if and when the Navajo Irrigation Project becomes a reality.

In October, 1960, the Navajo Tribe made application for $317,000 in residual funds from Federal appropriations totalling $1,800,000 made for revolving loan purposes to serve the Navajo and Hopi Tribes. It was against this appropriation that the $700,000, borrowed in 1950-51 as a credit fund by the Navajo Tribe, was charged. However, it is the policy of the Bureau of Indian Affairs to make federally appropriated funds available for credit purposes to Indian Tribes only if the latter are financially unable to support such programs with Tribal money. It was recommended, in 1960, that Tribal funds be appropriated to provide necessary additional financing for the revolving credit program, but the Council rejected this proposal and decided to apply for the remaining $317,000 in federally appropriated funds which they might subsequently match from Tribal money. The resultant impasse brought the revolving credit program to a near halt, a situation for which there was little hope of remedy until, in June 1961, the Tribal Council included the sum of $1,000,000 in the fiscal year 1962 Tribal budget, designated for loan purposes under the revolving credit program. Use of this Tribal appropriation was made subject to approval of a revised plan of operation by the Advisory Committee of the Tribal Council and the Commissioner of Indian Affairs.

Credit has been an important factor in Navajo economic life for at least the past 70 years. With the establishment of Trading Posts on the Reservation in the 1880's, a barter system developed, including the extension of short and long term credit by traders against future lamb and wool crops, or in the form of loans guaranteed by jewelry or other collateral placed in pawn. This type of credit remains an important aspect of Reservation life, despite the changing social and economic conditions of the past two decades.

The development of a wage economy and the acquisition of automobiles in recent years are factors which have stimulated or forced modifications in the traditional credit system. At a former period when automobiles were uncommon on the Reservation; when there were fewer all weather roads; and when the people were predominantly dependent on livestock, Reservation traders were secure in the granting of credit because they could ascertain the quantity of livestock the borrower owned, and they could estimate the production potential of the herd. Further, they knew that this collateral would remain in place and that its owner had few alternatives but to bring his wool and lambs to the trader with whom he normally did business.

With the changes in the livestock industry that took place during the period 1935-42, the number of Navajo families owning livestock, or which were otherwise dependent on stockraising, declined and wagework entered as a source of livelihood for many. With the development of a cash economy, the construction of roads and the Navajo's predilection for mobility, the ownership of automobiles increased rapidly on the Reservation in the post-war years, representing a commodity of first importance to most Navajo families. With pickups and trucks, livestock and produce could be hauled to market elsewhere than at the local trading post, thus introducing a credit risk that had previously been all but absent in the Reservation economic system. The problem of making credit secure was compounded by the fact that many customers lived from wages and had no tangible collateral. Further, the trader and storekeeper had to compete with the automobile dealer for the cash income of the Navajo customer, since virtually all automobiles are purchased on the installment plan. The necessity to make installment payments promptly on automobiles and other commodities led to increased credit business by banks and loan companies with Navajos who are regularly employed, as well as to special adaptations to the requirements of Navajo customers on the part of some automobile dealers (the acceptance of livestock in lieu of cash, for example). Reservation traders have found it necessary to limit carefully the amount of credit extended to individual customers, basing such limitations largely on individual earning capacity and repayment records.

Annual evaluations of credit extended to Navajos by non-Bureau lenders indicate a total of $7,195,000 in 1960, of which the major portion, estimated at $4,000,000, or 55.6%, was still carried by stores and trading posts; of the remainder, $1,810,000, or 25% was extended by banks and finance companies, and $1,000,000 or 13.9% represents installment buying of automobiles with financing through the dealers. It is interesting to note that, during the period 1954-56, inclusive, the level of credit extended by banks was at an all time high, involving an average of 8,700 loans per year, with the annual value of such bank loans averaging $2,984,317 for the period. It is also interesting to note that the same Bureau estimates indicate an average annual number and value of bank loans at 1,286 and $398,166 respectively for the 3-year period 1951-53, and 1,775 loans with an average value of $902,500 for the 4-year period 1957-60. At the same time, credit extended by stores and trading posts nearly doubled in 1958 (over the level granted in 1957), and it has remained at a high level since.

The following statistical summary of "outside" credit provides further detailed information in this regard. The figures provided are estimates based on a representative sampling in the communities surrounding the Reservation, and they are considered sufficiently accurate to reflect the trend in the credit relationship between the Navajo and non-Bureau creditors. With reference to these statistics the following preliminary summary of purpose and range with respect to the loans may be helpful in evaluating them.

To some extent the problem of effecting collections on the Reservation, which has long been a serious deterrent to the granting of credit to members of the Navajo Tribe, was offset when, in 1956, the Tribal Council adopted legislation (Resolution *CJ-51-56*) designed to permit non-Indians to sue members of the Tribe in the Reservation courts. However, this expedient has not wholly resolved the problem as yet.

By the end of the decade of the 1950's, creditors had become increasingly selective and cautious with respect to all classes of clientele, including Navajo customers, and there is a much reduced tendency to "sell" Indian customers beyond their ability to pay. In the past, over-zealousness on the part of lenders and sales people frequently had disastrous results in that Navajo consumers were loaded far beyond their resources, and even the Tribal Courts were reluctant to act to force them to pay what appeared to be unreasonable indebtedness. At present, the Tribe is attempting to implement a policy through its courts, designed to effect the collection of just and reasonable indebtedness incurred by Reservation residents with businessmen on and off the Reservation, to thus protect the credit of its members. Since the decision in the case of *Williams v. Lee*, in the Supreme Court of the United States, held that State courts lack jurisdiction over members of the Tribe and their property on the Reservation, the only recourse for creditors in the collection of debts incurred by Indians residing within the Reservation is the Tribal Court system. Many "outside" lenders have recommended that the Tribe establish its own Finance Corporation, as a Tribal enterprise, to facilitate the financing of automobiles and other consumer goods on the premise that the Tribe would be in a better position than non-Indian organizations and dealers to (1) evaluate the credit risk involved, on an individual basis, and (2) effect collections from its own members. The cost of installment buying could thus be significantly reduced for the Indian consumer. Many "outside" businessmen have commended the revolving credit program for its educational value in that borrowers are required to repay loans on a strict time schedule. Other non-Navajo business men recommend the establishment of an "Indian Credit Bureau", and still others recommend legislation by Congress to permit the collection of indebtedness through the State courts.

Whatever the source of credit may be, the fact remains that its availability is essential, and if it cannot be provided from existing sources, a means will have to be found through which to provide it. This will be especially true if, in coming years, developments of a major nature take place on the Reservation, necessitating home loans and the financing of productive enterprises, including irrigated farms.

The Reservation Credit System

The everyday needs of Reservation residents are met, in the general locality of their homes, by 138 licensed traders who operate establishments comparable to "general stores" in communities situated outside the Reservation area. From the time of their advent more than 90 years ago to the present day, the traders have not only been the medium through which innovations of many types have been introduced to Navajo culture, but

CREDIT RECEIVED BY NAVAJOS FROM NON-BUREAU LENDERS

1. Number of Loans

	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951
Banks	1,800	2,100	1,700	1,500	9,000	9,100	8,031	1,500	1,832	527
Finance & Loan Cos.	2,200	1,500	1,500	800	4,000	3,300	2,800	600		540
Installment Contr.	600	500	600	400	1,000	850	1,000	850		
Auto Dealers	1,200	1,500	1,000	800	2,700	2,800	3,005	600		731
Machinery Dlrs.	50	50	50	40	25					
Garages	400	250	250	250	200					
Stores & Trad. Posts	14,000	15,000	15,000	12,500	15,000	15,000	15,000	12,900		10,838
Other	500	500	500	500	700	800	750	500	14,089	
TOTAL	20,750	21,400	20,600	16,790	32,625	31,850	30,586	16,950	15,921	12,636

SOURCE	RANGE	PURPOSE
Banks	$ 50-$1500	Vehicles; livestock; personal.
Finance & Loan Cos.	$ 50-$1000	Personal; furniture; vehicles.
Installment Contracts	$100-$ 600	Appliances; furniture.
Automobile Dealers	$400-$3000	Vehicles
Machinery Dlrs.	$200-$1500	Farm Equipment
Garages	$ 50-$ 500	Repairs; labor
Stores, & Trad. Posts	$ 50-$ 600	Subsistence; operating expense.
Other	$ 50-$ 400	Home equipment; services.

2. Amount of Money Loaned

	1960	1959	1958	1957	1956	1955	1954	1953	1952	1951
Banks	$ 810,000	$ 900,000	$1,000,000	$ 900,000	$2,925,000	$3,100,000	$2,927,950	$ 300,000	$ 550,000	$ 344,000
Finance & Loan Cos.	1,000,000	800,000	600,000	480,000	800,000	650,000	522,000	180,000		230,065
Installment Contr.	190,000	155,000	180,000	140,000	100,000	69,000	75,000	85,000		
Auto Dealers	1,000,000	1,200,000	1,000,000	980,000	1,350,000	1,350,000	1,595,225	600,000		330,000
Machinery Dlrs.	35,000	35,000	35,000	26,000	15,000					
Garages	70,000	70,000	55,000	50,000	10,000					
Stores & Trad. Posts	4,000,000	5,550,000	6,100,000	3,125,000	3,450,000	3,500,000	3,600,000	1,181,866		1,150,440
Other	90,000	90,000	85,000	75,000	70,000	63,000	60,000	50,000	2,137,999	
TOTAL	$7,195,000	$8,800,000	$9,055,000	$5,776,000	$8,720,000	$8,732,000	$8,780,675	$2,396,866	$2,688,499	$2,066,614

also they have provided an outlet for Reservation products.

At an earlier period, wagework was virtually non-existent in the Navajo Country; the people remained predominantly within the Reservation, and money was not widely used as a medium of exchange. Rather, produce in the form of wool, lambs, pelts, arts and crafts and surplus agricultural crops were bartered for manufactured goods, either directly or indirectly through the medium of credit advanced on the value of such native products or sometimes, at a former period, through the medium of credit tokens ("Tin money") redeemable only at the place of issue. In fact, as an adaptation to the requirements of business under the peculiar conditions characteristic of the Reservation, traders instituted a system involving the advance of credit against future crops. Sometimes, security was required in the form of pawned jewelry and other valuables, especially when the amount of credit outstanding against an account became excessive, but more often customers were able to live within the credit ceilings established by the Trader, based on the probable value of future sales of lambs, wool and other produce. Credit became an established medium of exchange, and remains so despite the growing importance of wagework and the comparatively higher proportion of uncollectible indebtedness. Where the population is relatively stable, the old credit system based on agricultural and livestock produce, as well as the more recent extension of the old system, based on cash income, operates quite smoothly, and business losses, under good management, are few.

Thus, to illustrate present business by actual examples, Trading Post *A* is located in a fairly remote section of the western Reservation where local employment opportunities are relatively low, and where the population is quite stable. Over a 12-month period in 1960, this business showed gross sales totalling $202,427. Of this total, $113,546, or 56%, of the sales were made on a credit basis, and only 44%, or $88,881, involved cash sales. Of the total credit advanced during 1960, $25,027, or 22%, was secured by pawn. At the end of the year, only $406, or 0.4% of the total sales was written off as uncollectible. The business purchased $10,728 worth of arts and crafts, and $19,127 worth of other native products during the year, which were sold for $10,477 and $19,429, respectively.

In contrast, Trading Post *B* is located in one of the largest communities on the Reservation, and in an area of high wage and salary work. In a comparable 12-month period in 1960, this business reported gross sales totalling $322,465, of which $257,060, or 80%, represented credit, while only 20%, or $65,405, was done on a cash basis. Only 10% of the total credit, or $31,220 was secured by pawn, and of the $257,060 advanced in credit, $21,618, or more than 8% was written off as uncollectible. This business also purchased arts and crafts to a total value of $12,642, and other native products to a total of $58,421 during the year, selling them at $12,642 and $59,005 respectively.

Consumer credit of types utilized by the general population outside the Reservation area is also available to, and is used by, Reservation residents, including installment purchasing and open accounts. However, the Reservation credit system has its roots in an earlier period of Navajo history and there are many more or less subtle differences that distinguish it from the more usual credit practices. It has adapted itself readily to changing conditions in the Navajo Country, including the establishment of trading regulations by the Navajo Tribe in its capacity as landlord and the collections of rentals from traders by the Tribal Government. The latter, cognizant of changing conditions requiring new procedures, has enacted legislation to permit the filing of suits by non-Indians against Indians in the Tribal Courts, for the collection of indebtedness. The provision is an essential adaptation to modern requirements if the credit needs of employed Navajos are to be met. At the same time, it is designed to protect non-Indian business men in assuming credit risks, and to prevent the need for inflation of prices charged for commodities necessary to recoup losses occasioned by uncollectible accounts.

Realty

THE NAVAJO RESERVATION

Historical: Over the course of the six centuries or more that the Navajos and their immediate ancestors (the Apachean peoples who migrated from the North) have been in the American Southwest, the area of Navajo occupancy has shifted with the years, partly as a result of changing cultural adaptations; partly as a result of population growth; and partly as a reaction to pressures brought to bear by surrounding tribes or, at a later period, by the Spanish, Mexican and American people and their governments.

In traditional accounts, the early area of Navajo occupancy is known as *Dinetah*, Navajoland, an area the boundaries of which are vague if, indeed, they were ever defined, but one comprising perhaps 3,000 square miles of territory west of the Chama River in New Mexico and extending south of the Navajo

River into the Jemez Mountain Range.[1] It is a region abounding in archaic Navajo placenames.

After the advent of the Spaniards there was apparently a shift into the Gobernador Canyon area, and later into the vast region lying to the west, toward the Hopi country and the Grand Canyon. The penetration was slow and gradual. The first known historical reference to the Navajo, by Fr. Zarate Salmeron in his account of events in California and New Mexico, in 1626, places the Navajo of that period in the area in reference above.

By the latter portion of the 18th century, the Navajos are described as a "nation" of some 700 families, divided into five groups identified with the localities of San Mateo (Mt. Taylor), Cebolleta, Chuska, Canon de Chelley, and Bear Springs.

The shift westward carried the penetration gradually into the Shonto-Navajo Mountain area, the region along the Little Colorado River and the Gray Mountain country. In 1856, Dr. Jonathan Letherman, the Post-Surgeon at Ft. Defiance described the Navajo as "a Tribe inhabiting a district in the Territory of New Mexico between the San Juan River on the north and northeast, the Pueblo of Zuni on the south, and Moqui (Hopi) villages on the west and the ridge of land dividing the water that flows into the Pacific (the Continental Divide) on the east, giving an area of 12,000 square miles . . . . . ."[2]

The intensive research which, over the past decade, has been conducted as an aspect of the preparation of the Navajo land claim case by the Tribe, has developed archaeological, historical and other evidence which will provide the basis for a detailed picture of the areas used and occupied by this Tribe at various periods during the past four centuries.

Several unratified treaties were concluded with the Navajo between 1848 and 1868, and of these the treaties of July 18, 1855 and December 25, 1858, described the boundaries of the Navajo Country. These, as well as the prior extent of Navajo landholdings, are described by Royce[3] in the following terms: "According to the report of superintendent Merriwether, in 1854, the Navajo country extended from the Rio Grande to the Colorado, and from about 35° to 37° N. latitude. This, in conjunction with other authorities, seems to indicate that the southern boundary of their claim was Little Colorado River to the mouth of Zuni River, thence to the source of Zuni River and continuing eastwardly to the Rio Grande. On July 18, 1855, Superintendent Merriwether concluded a treaty with the Navajo by which they ceded a portion of their country."

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[1] As described by Richard Van Valkenburgh in an unpublished ms entitled "Some Historical Aspects of the Navajo Land Problem".

[2] The Navajo Indian, by Jonathan Letherman, Report of the Smithsonian Institution, 1856.

[3] See "Indian Land Cessions in the United States," compiled by Charles C. Royce, and published as the 18th Annual Report of the Bureau of American Ethnology, 1897, pp. 849-850.

Maps numbered 4 and 44 of the compilation cited above reflect the western boundary established by the treaty of 1855 as a line running (approximately) from the present location of Mexican Hat on the San Juan River (north of present Kayenta, Arizona) to the confluence of Chevalon Creek and the Little Colorado between present Holbrook and Winslow. The eastern boundary follows the San Juan River from the present Four Corners to the northern extreme of Canon Largo in New Mexico and thence in a southerly direction along the canyon in reference to its southern end. From the southern extreme of Canon Largo, the line passes, in a southwesterly direction to the Zuni River at a point just east of the Pueblo of Zuni.

With further reference to the Merriwether Treaty of 1855 and to a subsequent treaty of 1858, Royce[4] states, "the Treaty (of 1855) was never ratified, but the boundaries of the country the Navajos reserved to themselves under its provision are shown by dotted black lines (on maps 4 and 44). After a war with the Navajo, a treaty of peace was concluded with them December 25, 1858 by Colonel Bonneville and Superintendent Collins, by which it was agreed that the eastern limit of the Navajo country should thenceforth be a line commencing at Pescado Spring, at the head of the Zuni River; thence in a direct line to Bear Spring, on the road from Albuquerque to Fort Defiance; thence to the pueblo or ruins of Escondido on the Chaco; thence to the junction of the Chaco or Tunicha with the San Juan. Like its predecessor, this treaty was never ratified, but the boundary established by it is shown by a black line."

A western boundary does not appear to have been established by the treaty of 1858, and the eastern boundary established in 1858, as well as the eastern boundary set in the final Navajo Treaty ten years later in 1868, each represent a significant shrinkage of Navajo territory in New Mexico. The apparent intent was to push the Tribe westward out of their old homeland. However, until 1868, the Tribe refused to comply and Tribal members tenaciously held their land in New Mexico, excluding non-Navajo sheepmen from the area lying west of the Rio Puerco of the East.

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[4] Op. cit. supra.

The Treaty of 1868, concluded at Ft. Sumner while the Navajos were still held captive at that location, established a reservation for the Tribe composed of a small portion of the original area of Navajo occupancy. The area, still known as the "Treaty Reservation," embraces 3,314,330 acres of land in the form of a rectangle extending roughly from Fort Defiance on the south to the Utah-Colorado border on the north, and from Shiprock on the east to Chinle on the west. In view of its circumstances in 1868, the Tribe had no bargaining power and was obliged to accept the area offered by the American government in the Treaty.

It soon became apparent that the reservation was insufficient to support the Tribe. When The People returned from Fort Sumner, many families resumed residence in the localities where they had lived prior to their captivity; in so doing, many became squatters on the Public Domain. Others spread beyond the Reservation boundaries despite efforts by the territorial and national governments to restrict them to the land established for their use and occupancy by the Treaty of 1868.

By 1875, New Mexican sheepmen were grazing their herds within Navajo Country as far as the eastern boundary of the Treaty Reservation, and it was in that year that the leaders and headmen of the Tribe learned that the Atlantic and Pacific Railroad was to be constructed through the southern section of the area they considered as theirs. Also, they learned that the railroad was to be granted alternate sections to a depth of 40-50 miles on both sides of the right of way. A delegation of headmen went to Washington, under the leadership of Manuelito, to plead with President Grant, but without avail so far as saving these valuable grazing lands and water holes was concerned. The Federal government offered lands north of the San Juan River in exchange for those the Tribe would lose on the south. At first, the Tribal leaders refused, but they were later obliged to consent to an exchange, and the Executive Order of October 29, 1878 added a rectangular area of about 911,257 acres along the western boundary of the Treaty Reservation to compensate for the loss of lands on the south.

The lands so acquired were in no wise comparable with those the Tribe lost, and by 1878 the demand for space to accommodate the spreading herds and growing Tribal population gave rise to a clamor for land that has not died out to the present day, nor has it ever been possible to meet the need despite the many additions that were subsequently made to the Reservation.

On January 6, 1880, another area of 1,230,347 acres was added by Executive Order to the Reservation thus restoring another piece of land formerly used by the Tribe. In general, this area extended eastward up the San Juan River from the point where the eastern boundary of the Treaty Reservation crosses the river to a point 15 miles due east, across from the mouth of La Plata River; thence southward to a point about 6 miles west of Crownpoint; west passing about 2 miles north of St. Michaels to a point about 25 miles west of Ganado and thence northward to join the southwestern corner of the area added by the Executive Order of 1878.

By 1880 it was estimated that half of the members of the Tribe were living outside the boundaries of the Reservation on lands they had occupied prior to the Treaty of 1868, and at many points there were conflicts and even bloodshed between Navajos and the incoming peoples who were then spreading westward across the nation.

On December 16, 1882, President Chester Arthur signed an Executive Order establishing the rectangular area of 2,441,830 acres, "for Moki and other Indians," currently in dispute between the Navajos and the Hopis. The block in reference lay partially along the then western boundary of the Navajo Reservation.

During the period 1882-84, clashes between Navajos and non-Navajos became so frequent that troops were necessary in some instances (e.g. the Tanner Springs area in 1883 and the eastern part of the Navajo country in the same year, where an effort was made to force Navajos back within the Reservation boundaries). Accordingly, in 1884, Agent Dennis Riordan recommended that the Tribe be granted all the land south of the San Juan River and within the boundaries of the east-west line of the Reservation as it existed in that year. In the spring of 1884, the War Department dispatched a survey party to establish the eastern and southern lines of the Reservation.

On May 17, 1884, the President issued two Executive Orders. Of these, one restored to the public domain certain townships south of the San Juan River, included in the Order of 1880; the other realized Agent Riordan's recommendation, adding 2,468,125 acres to the 7,924,000 acre area already legally part of the Navajo Reservation (exclusive of the 1882 Executive Order area). The new lands added a block north of the 1882 extension to the Colorado and San Juan Rivers, although an area in Utah known as the Paiute Strip was in uncertain status for 50 years after the 1884 extension.

The competition between Navajos and non-Navajo settlers continued, however, and in 1885 the Secretary of the Interior ordered the Land Office to close all entries to non-Navajos wishing to homestead on the public domain adjoining the established Navajo Reservation. It was his intention to give Navajos living on these areas of the public domain an opportunity to file for homesteads, and the Federal Government was to absorb the cost of such filing. For unknown reasons, there is no record that any Indian took advantage of this opportunity.

On April 24, 1886, an Executive Order was signed restoring as part of the Navajo Reservation a small area of about 39,725 acres south of the San Juan River, included in the Order of January 6, 1880, but restored to the public domain by one of the Orders of May 17, 1884.

Mining interest in the Utah Strip led President Benjamin Harrison, on November 19, 1892, to issue an Executive Order restoring part of this sector to the public domain. The restored land was part of the area added to the Reservation by the Executive Order of May 17, 1884, and the restoration included all the lands described in that Order lying west of the 110° west longitude and within the Territory of Utah. About 431,160 acres were thus restored to the public domain, although the area involved remained subject to Indian use; it was administered by the Western Navajo Agency during the period 1908 to 1922, and was in withdrawn status by Departmental Order from 1929 to 1933. In the latter year it was restored, by Act of Congress, as part of the Navajo Reservation.

On the west, in the 1890's trouble was brewing along the Moencopi Wash in an area of long standing Indian use. In 1776, Fr. Garces had mentioned the fact that the Havasupai were living and farming there. Hopis from Oraibi had farmed there every summer for hundreds of years, and prior to 1864 the Navajo also farmed in this well watered area near the present site of Tuba City. In 1875, a group of Mormons under the leadership of James Brown settled along the Moencopi Wash, and these people built a new town which they named Tuba City after a Hopi Chief from Oraibi (Toovi).

In 1894, a Navajo headman named Chach'osh (Syphilis) killed a Mormon leader by the name of Lot Smith in an altercation over water and range rights.

Elsewhere on the west, outside the boundaries of the Reservation, non-Indian stockmen were determined to drive Navajo squatters off the public domain. In the winter of 1897, the Board of Supervisors of Coconino County ordered the eviction of 16 Navajo families from their hogans west of the Little

Colorado River. Their sheep were driven into the icy waters of the stream where many, with their lambs, were lost. Although nothing was done, legally, in behalf of the dispossessed Indians, public opinion flared in their favor. The building of the railroad also occasioned the loss of land used by other members of the Tribe.

In an effort to obtain relief for the Navajos on the west a missionary by the name of William R. Johnston took two Navajo Headmen to Washington in the fall of 1901 where President Theodore Roosevelt gave sympathetic attention to their story. He caused an investigation to be carried out, after which allotments were made to some of the Navajo families involved; the Moencopi problem was solved by the purchase, for $40,000, of the Mormon holdings in the Tuba City area; and the signing of the Executive Order of January 8, 1900, added 1,517,785 acres of land to the Navajo Reservation, embracing an area west of the 1882 extension ("Moki Reservation"), and west of the May 17, 1884 extension of the Navajo Reservation. On November 14, 1901, President Roosevelt signed the Executive Order which added the 419,622 acre Leupp sector to the Reservation, bringing the total Navajo land area to nearly 12,000,000 acres.

The Executive Order issued on March 10, 1905 was rescinded for correction purposes on May 15, 1905, but both actions were concerned with a similar area, and had the effect of adding about 56,953 acres known as the Aneth Extension. (This is now part of the rich Four Corners — Aneth Oil Field which was destined to gain prominence and pour millions of dollars into the Tribal treasury some 50 years later.)

To ease conflict on the east, President Theodore Roosevelt, on November 9, 1907, issued an Executive Order adding a vast strip to the Reservation. This Order involved an area of more than 3,000,000 acres in New Mexico and Arizona upon which there lived at least 4,000 Navajos. An Order issued by the President on January 28, 1908, amended the previous Order to eliminate conflict with the boundary of the Jicarilla Reservation established by the Executive Order of November 11, 1907. On December 30, 1908, President Roosevelt restored to the public domain a portion of the New Mexico land area added to the Reservation by the Order of November 9, 1907. This area lay in the Star Lake — Torreon — Penistaja — Ojo Alamo region of New Mexico, but 110 Navajo allotment selections were excluded from the restoration.

There had been great opposition to the establishment, by President Roosevelt, of what came to be known as the Pueblo Bonito Reservation. From the time of the signing of the

Executive Order of November 9, 1907, until its rescission four years later, there was a growing clamor of protest brought to bear by non-Indian stockmen and politicians, determined to force restoration to the public domain of this portion of the old Navajo Country. Since there were rumors of oil deposits in the area after 1907, the demand was especially great (and the subsequent development of the Hospah oil fields confirmed the rumors at a later date).

During the period intervening between issuance of the Executive Orders of November 9, 1907 and January 28, 1908, and their partial restoration to the public domain by President Taft on January 16, 1911, the Bureau of Indian Affairs sent allotment agents into the area embraced by the Pueblo Bonito Reservation, and succeeded in making some 2,000 allotments to Navajo residents of the region.

The Order of January 16, 1911, restored to the public domain all unallotted lands added to the New Mexico portion of the Reservation four years previously. However, of the original area added in 1907, the 951,835 acres lying in the Arizona portion of the Reservation were not affected by the rescission.

Aside from a few administrative areas, there was no action to enlarge the Reservation until May 7, 1917, at which time President Woodrow Wilson issued an Order adding 91,033 acres in the Gray Mountain area, but setting the area aside "temporarily until allotments in severalty can be made to the Navajo Indians living thereon, or until some other provision can be made for their welfare." On January 19, 1918, the previous Order was revoked and replaced by a new Order affecting the same area, and adding an estimated 94,000 acres to the Reservation.

In 1918, the New Mexico delegation to Congress secured the enactment of legislation to prevent further enlargement of the Navajo Reservation by Executive Order — providing for future enlargement only by Act of Congress and, in 1919, general legislation was adopted, precluding the enlargement of *any* Indian reservation from the public domain except by Act of Congress. On March 3, 1927, the Congress passed an Act which provided that no changes could thereafter be made in the boundary of any Indian reservation except by the consent of Congress.

There were still many Navajos living on the public domain, especially along the eastern and southern boundary of the Reservation, and, to protect them in the tenure of their land, the Bureau of Indian Affairs continued, after 1918, to send allotting Agents into the Reservation area. As a result, some 4,600

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allotments were made, in total, in the Navajo Country during the first quarter of the 20th century. These involved 160 acres for each Indian who was the head of a family, plus equal acreages for his wife and each of his children. Many families received as many as five or six 160-acre allotments during the period 1907-1930. However, non-Navajo opposition brought the allotment program to a close in the latter year.

A few 640-acre homesteads were also taken under the provisions of the 1916 Grazing Homestead Act, and some of these were trust patented. Between 1917 and 1933, 134,039 acres were added to the Arizona portion of the Navajo Reservation by two Acts of Congress, on May 23, 1930 and February 2, 1931, but the first legislation of a major nature was that of March 1, 1933, whereby Congress added the 484,160 acre Paiute Strip and Aneth Extension to the Reservation in Utah. The Act in reference provided that, should oil or gas be discovered in paying quantities on the Paiute Strip-Aneth Extension area, 37½% of the net royalties from such production would be payable to the State of Utah for "payment of the tuition of Indian children in white schools, and/or in the building or maintenance of roads across the lands described in Section 1 hereof, or for the benefit of Indians residing therein." Also, Utah was authorized to relinquish such school tracts as it might wish to relinquish within the area added to the Reservation, and select lieu tracts of equal acreage outside the area. At the same time, plans were under consideration for the rounding out and confirmation of the boundary of the Navajo Reservation in Arizona. The legislation which was developed to accomplish this objective, know as the Arizona Boundary Bill (the Act of June 14, 1934), added some 792,366 acres to the Reservation, largely along the southern and southwestern portion of the Navajo Country. The added acreage included railroad, private and allotted lands in the Moqui Butte-Houck-Sanders area which were exchanged for other lands of comparable value by the previous private owners. The Act in reference authorized the appropriation of $481,879.38 for the purchase of privately owned lands thus added to the Reservation, but with the proviso that these funds were reimbursable from funds that might accrue to the Tribe in future years. The Arizona Boundary Act served to define the boundaries of the Navajo Reservation in the State of Arizona.

The Act of June 14, 1934, secured the Tribe in its title to the Reservation in Arizona (except for the area embraced by the Executive Order of 1882, currently involved in a dispute between the Navajos and the Hopis). In New Mexico, similar action was required to protect Navajo interests. Friction between Navajos and non-Navajos had continued unabated since President Taft's rescission of the Executive Order of 1907, returning a large part of the Pueblo Bonito Reservation in New Mexico to the public domain. This action constituted a victory and a gain in land ownership for non-Indian residents of this portion of the Old Navajo Country, while for the Navajo population it was a serious economic blow.

In June of 1931 the Director of Lands for the Indian Office was sent to the Navajo Country to devise, if possible, a future policy to govern land acquisition and consolidation in what had become a "checkerboard" area of Indian holdings interspersed among non-Indian lands.[5] On his recommendation, Secretary of the Interior Harold L. Ickes withdrew from entry the entire 4,000,000 acres included in the contested area. With the ownership pattern in the area involving, as it did, state, tribal purchased, allotted, homestead, private, National forest and public lands, the title problem was complex. It was therefore proposed by the Bureau of Indian Affairs to trace a proposed boundary toward which an exchange program, involving land purchase with Tribal funds, would be aimed. A proposed Bill was drafted, including roughly the Pueblo Bonito Reservation which had been established in 1907 by President Roosevelt and subsequently restored to the public domain in 1911 by President Taft.

A series of meetings were held during the period 1933-35 involving all interested parties, including the Governor of New Mexico, Senators Carl Hatch and Bronson Cutting, and many other officials. Within the area involved, the Navajos actually owned 49% of the total land area; 20% was federal; 16% was railroad; 7% was state; 3% was property of the New Mexico-Arizona Land Company, and 4% was in private ownership status. The possibilities of effecting passage of an Act to define and secure the boundary of the Navajo Reservation in New Mexico were very bright until Senator Cutting's untimely death in an airplane accident threw the issue into confusion. On May 28, 1935 the Bill was actually passed by the Senate, but it was subsequently withdrawn for reconsideration. A series of hearings were held at Window Rock during the period August 17-20,

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[5] Again, William R. Johnston played an active role in the events which led to official action by the Director of Lands in behalf of Navajo interests in the checkerboard as well as in the Paiute Strip-Aneth Extension areas. (Personal communication from Bernice Johnston.)

1936[6], following which interest in the New Mexico Boundary Bill subsided and died out. At this date, the hope for extension and definition of the Reservation in New Mexico appears to be a lost cause, with certain exceptions. Of these, one involves a proposed consolidation and adjustment of land in the Church Rock-Two Wells area of northwestern New Mexico — part of the old Pueblo Bonito Reservation. As presently drafted, the Bill will permit exchange and consolidation of Indian and non-Indian land, as well as transfer, with *fee* title, of some 250,000 acres long occupied without firm title by Navajos, outside the Reservation Boundary in New Mexico. The original proposal was for inclusion of the acreage as part of the Reservation, with title held in trust status, but objection to this proposal arose at the time the Bill was presented to the Congress, and the Navajo Tribal Council in 1960, agreed to accept the land in fee status and assume responsibility for the payment of taxes thereon to the State of New Mexico.

During the decade of the 1950's, and especially after the opening of the Reservation oil fields in the Four Corners area, tribal interest arose favoring the purchase of ranches situated contiguously to the Reservation. A number of negotiations were carried out with private owners, resulting in purchase of the present 100,000 acre Bar-N Ranch south of Sanders, Arizona; the 78,618 acre Sargent Ranch north of Crownpoint in New Mexico; and a 56,000 acre area which the Navajos had leased from the Pueblos of Picuris and Pojoaque during the period about 1942 to 1956. The latter acreage was, and is, used by the Ramah Navajos.

Finally, construction of the Glen Canyon Dam, in the northwestern corner of the Reservation in Arizona, led to a land exchange with the Federal Government involving about 53,000 acres of Tribal land for about 49,848 acres in the McCracken Mesa area of San Juan County, Utah, and about 4,000 acres in Utah, still to be selected. The latter area had long been the scene of bitter conflict between members of the Tribe and non-Indian occupants of this piece of public domain. The exchanges involve surface rights only.

Thus, in 1960, the Navajo Reservation has grown to comprise an estimated 14,250,000 acres exclusive of Hopi District 6. In addition, the Navajo Country (total area of Navajo use and occupancy) includes 662,776 acres of allotted lands in the Checkerboard Area, lying adjacent to the Reservation boundary and largely in New Mexico; 200,000 acres of tribal lands held in fee; 243,000 acres of tribal trust land, to a grand total of approximately 15.4 million acres. In addition, about 600,000 acres of various types of federally owned lands are still used by Navajos in New Mexico. The total area of occupancy thus approximates 16 million acres. The Canoncito and Alamo bands of Navajos, living at locations remote from the main body of the Tribe, utilize comparatively small acreages composed of allotted, tribally purchased, and federal land, and these areas are under the jurisdiction of the United Pueblos Agency.

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[6] Hearings before a Subcommittee of Indian Affairs, U. S. Senate, 75th Cong., Part 34 — Publ. 1937, GPO.

STATUS OF LAND UNDER NAVAJO JURISDICTION
OUTSIDE RESERVATION BY STATE AND COUNTY IN ACRES

State and County	Tribal Fee	Tribal Trust	Trust Allotment	Resettlement Land	Administrative Reserves	R. R. Exchange Land	Total
Arizona							
Apache	99,017	-	2,278	-	22 --	-	101,317
Navajo	-	-	3,020	-	-	-	3,020
Coconino	-	-	2,081	-	100	-	2,181
Totals	99,017	-	7,379	-	122	-	106,518
New Mexico							
McKinley	50,442	172,661	363,411	70,267	4,420	204,237	865,438
San Juan	47,338	5,752	143,840	-	1,030	24,185	222,145
Sandoval	--	—	56,161	-	40	-	56,201
Valencia	3,886	--	--	-	-	-	3,886
Rio Arriba	—	--	800	-	-	-	800
Totals	101,666	178,413	564,212	70,267	5,490	228,422	1,148,470
Utah							
San Juan	-	-	160	-	6	-	166
Totals	-	-	160	-	6	-	166
Grand Total	200,683	178,413	571,751	70,267	5,618	228,422	1,255,154

Does not include approximately 600,000 acres Public Domain administered by Bureau of Land Management and used by Navajos.

Prepared by Navajo Agency, Branch of Realty

The Navajo Agency Branch of Realty: The United States Government holds, in trust for the Navajo Tribe, the title to the Reservation lands, including those areas purchased by the Tribe; and the United States Government holds, in trust status for recipients of allotments or for their heirs, title to such areas of individual ownership. As trustee, the Federal Government is responsible for protection and management of property to which title is vested in Indian Tribes (or in individuals, in the case of trust allotments), and this responsibility is exercised, in part, by the Branch of Realty. The functions of this agency of the Federal Government include the sale, exchange, partition, patenting and leasing of Tribal and allotted lands; the securing of bids, in accordance with Federal regulations, for the lease of areas desired for mineral, oil or gas development; the negotiation of

STATUS OF LAND UNDER NAVAJO JURISDICTION INSIDE RESERVATION BY STATE AND COUNTY IN ACRES

(Hopi District 6 - Not Included)

State & County	Tribal Land	Trust Allotment	Private	Total
Arizona				
Apache	4,022,832	31,926	8,544	4,063,302
Navajo	2,956,715	45,820	1,620	3,004,155
Coconino	3,742,730	2,559	4,755	3,750,044
Total	10,722,277	80,305	14,919	10,817,501
New Mexico				
San Juan	1,725,015	-	-	1,725,015
McKinley	658,000	-	-	658,000
Total	2,383,015	-	-	2,383,015
Utah				
San Juan	1,184,143	10,720	54,990	1,249.853
Grand Total	14,289,435	91,025	69,909	14,450,369

Prepared by Navajo Agency, Branch of Realty

rights-of-way; the issuance of mineral exploration permits; and the custody of records pertaining to these functions.

Probate: Federal law places on the Federal Government the responsibility for determining the heirs of deceased allottees and/or their heirs who die owning trust or restricted land.

There are about 4,185 allotments of 160 acres each in the Navajo Country, of which the majority were acquired during the period 1908-1922, with a smaller number during the period intervening between the latter year and 1931, or even later in a few instances. All allotments were made on the public domain, and the Reservation proper has never been allotted in severalty, but is held in common by all members of the Tribe.

Little progress was made in determining the heirs to trust allotments of deceased Indians until the late 1930's when a permanent Examiner of Inheritance was established in Phoenix, Arizona, with coverage including the Navajo area. This official devoted his time for periods of two to three months per year in the Navajo Country, and thus completed an average of 50-75 probate cases annually. It was not until 1955 that an Examiner of Inheritance and necessary staff could be established at Gallup Area headquarters to serve tribes under its jurisdiction. Between 1955-60, a total of 469 heirship cases had been completed by the newly established office and, of 4,185 Navajo allotments, 2,068 had been involved in completed heirship determinations by June 30, 1960. These in conjunction with completion of 383 cases involving heirs of allottees bring the total to 2,451 cases completed since the beginning. At the close of fiscal year 1960, 328 cases were pending, leaving an apparent total of 1,406 original allottees still living. However, it is estimated that 300-400 of the latter are probably deceased although their deaths have not been reported or recorded. Frequently, such cases come to light in the course of right-of-way negotiations, leases, and similar transactions.

With current staffing, the Realty and Probate offices can process about 100 heirship cases per year, a rate of progress which does not permit them to eliminate the backlog or keep abreast of new demands — especially in view of the fact that the caseload is compounded as the number of heirs increases. There are currently 12,000 legal heirs of record with relation to the cases so far completed, with some cases involving 125 to 150 interested parties. As the number of heirs increases, the value of the individual shares diminishes.

This problem relating to probate is one which has concerned the Bureau of Indian Affairs for many years, and many and varied solutions have been proposed, including the issuance of fee patents to the heirs; tribal purchase of allotted lands; limitation of the line of descent and escheatment thereafter to tribal ownership; Federal purchase for the Tribe with trust title, and others.

Mineral, Oil and Gas Leasing: At the beginning of the decade of the 1950's, 51 existing oil wells, located on the Reservation, were producing 133,173 barrels of oil per year; in 1956, 54 wells produced 354,397 barrels; and at the close of the decade, in 1960, 860 wells were producing 34,272,928 barrels. Increased production swelled Tribal royalty income from $41,771 in 1950 to $8,834,759 in 1960.

The workload in the Branch of Realty has increased enormously across the 10-year period and, in 1960, $69,400 in Federal funds and $44,608 in Tribal funds supported 17 Federal employees required to expedite the business of leasing for oil and gas development. With this relatively small investment to support operation of the leasing program, many millions of dollars have flowed annually into the Tribal treasury, deriving from bonuses paid by oil companies for the privilege of leasing promising acreages of Tribal and allotted land for oil and gas development purposes; annual rentals at $1.25 per acre on leased areas; and royalties paid on production. In the past, Federal regulations placed the "standard" royalty rate at 12½% on oil and gas leases, allowing higher rates in individual instances. By order of February 28, 1961, the "standard" rate was increased to 16⅔%, with a recommendation that higher rates be used in areas where competition is keen. Since 1935, more than $100 million have flowed into the Tribal treasury, largely from these sources, of which more than 90% was realized during the period 1957-1960. At the same time, during the decade of the 1950's, a total of nearly $7.5 million was paid to individuals owning allotments or interests in such estates.

In the rough terrain that characterizes much of the Reservation area, the cost of exploration and drilling is high, averaging about $115,000 per well, complete with pumping, casing and other equipment. To transport the oil to refineries, it was necessary to construct two 16-inch pipelines, completed in 1958, and capable of carrying 100,000 barrels per day. Of these, the Texas-New Mexico Pipeline carries oil from the Aneth fields to Jal, New Mexico, while the Four Corners Pipeline carries the product to the West Coast. The latter system alone cost some $140 million to build.

Since 1958, new oil and gas discoveries indicate a strong possibility for the development of four new oil fields. There is the possibility of two new fields in Utah in the area lying to the southwest of the Greater Aneth Field; one in the extreme northeastern corner of Arizona, and one in the northwestern portion of New Mexico, all within the Reservation area. The two fields in reference in Utah are known as the Tohonadla and Boundary Butte fields; the Arizona development is called the East Boundary Butte and that in northwestern New Mexico is known as the Anito Field. Lack of media for transportation hampers the Utah developments although pipeline construction is expected to open up these areas.

The Horseshoe Canyon Field, a proven area in northwestern New Mexico, has been highly productive since it first opened in September of 1958. It has been almost completely developed and secondary recovery is being considered in 1961. This field has had the added advantage of low cost drilling: a well can be drilled within a period of seven to ten days, to a depth of 900-1236 feet, and at an average cost of only $22,000, complete. The average initial production is 100 barrels per day. This cost stands in sharp contrast with the wells in the Aneth field, drilled to depths of 5500-6200 feet at costs of $100,000-$300,000 per completed well.

At the close of the past decade, 1950-60, there were 1,423,659 acres under lease for oil and gas development on the Navajo Reservation, and there is a good possibility that this leased acreage will increase to 3,000,000 acres or more. Royalties and rentals now averaging approximately a million dollars per month, could rise potentially to more than twice the current level if developments to come are as productive as the future fields would lead one to believe.

For some twenty-five years, oil companies have been interested in exploring the oil and gas potential of the Black Mesa Basin, a region lying within the area of the Executive Order of 1882, the ownership of which is in dispute between the Navajo and Hopi Tribes. It is a very promising area, and one that is expected to produce a high income when, with its ownership finally determined, development leasing becomes possible by the Tribe concerned.

OIL PRODUCTION - NAVAJO TRIBAL LANDS

BY FISCAL YEARS SINCE BEGINNING OF PRODUCTION

F/Y	Barrels	F/Y	Barrels
1925	233,402.96	1945	152,517.13
1926	374,100.88	1946	176,134.16
1927	884,490.11	1947	171,152.13
1928	372,895.19	1948	158,977.62
1929	519,438.46	1949	142,223.76
1930	683,451.99	1950	141,699.28
1931	482,299.42	1951	170,397.24
1932	106,131.86	1952	133,983.55
1933	391,267.32	1953	123,044.90
1934	419,487.12	1954	121,923.62
1935	335,787.82	1955	174,000.52
1936	376,449.03	1956	387,467.83
1937	398,469.35	1957	1,303,947.36
1938	329,292.04	1958	5,599,477.28
1939	329,336.74	1959	29,814,234.59
1940	296,156.68	* 1960	20,001,642.42
1941	123,039.81	** 1961	30,957,627.80
1942	122,351.91		
1943	147,731.81	Grand Total Production	96,788,911.48
1944	132,879.79		

* Due to requirements of new annual report only 7 months production shown for 1960.

** New report period - February through January.

The high income from oil and gas since 1956 has made possible the many Tribal programs carried on by the Navajo Tribe through annual appropriations of Tribal funds, as reflected or described in pertinent sections of this report. Police and Welfare services, chapter house and community center construction, the new Forest Products Industry, and many other activities on the Reservation have been made possible by the recent develop-

INCOME FROM MINERALS, EXCLUSIVE OF GAS AND OIL

1950 - 1960

Fiscal Year	Uranium & Vanadium	Sand and Gravel	Coal	Totals
1950				
Tribal	$ 65,755.92	$ 328.67	$ -	$ 66,084.59
Allotted	-	-	-	-
1951				
Tribal	151,204.65	1,767.50	402.70	153,374.85
Allotted	-	974.90	-	974.90
1952				
Tribal	299,212.34	1,757.38	3,072.66	304,042.38
Allotted	2,692.10	-	-	2,692.10
1953				
Tribal	470,254.17	1,452.30	3,450.19	475,156.66
Allotted	28,910.82	25.00	--	28,935.82
1954				
Tribal	656,837.13	3,177.38	3,423.12	663,437.63
Allotted	45,344.79	1,126.06	-	46,470.85
1955				
Tribal	651,693.40	2,535.99	1,408.93	655,638.32
Allotted	21,294.48	1,410.90	-	22,705.38
1956				
Tribal	548,537.00	1,237.62	1,982.65	551,757.27
Allotted	27,352.00	805.98	-	28,157.98
1957				
Tribal	678,835.24	5,088.39	1,477.81	685,401.44
Allotted	19,150.73	3,217.99	-	22,368.72
1958				
Tribal	754,274.00	25,000.00	2,539.00	781,813.00
Allotted	595,560.00	6,450.00	-	602,010.00
1959				
Tribal	653,277.70	36,044.30	12,453.00	701,775.00
Allotted	119,975.30	5,555.70	-	125,531.00
1960				
Tribal	647,387.00	34,086.00	13,210.00	694,683.00
Allotted	212,504.00	396.00	-	212,900.00
Grand total	$ 6,650,052.77	$ 132,438.06	$ 43,420.06	$ 6,825,910.89

Prepared by Navajo Agency, Branch of Realty

ment of oil and gas resources. The Navajo Tribe is not yet "rich" if the income of the past few years is viewed in terms of per capita shares on the basis of a population of 88,000 shareholders or more; from this point of view each member's share in *total* oil and gas revenues received during *the entire decade* of the 1950's amounts to only $1,238. On a per capita basis the income is still too small for economic distribution as a dividend (the per capita interest in the total oil and gas income received in 1960 was only $132) but it has been possible for the Tribe to develop and support many programs which have improved the life of the people on the Reservation, including those mentioned above. It is pos-

NAVAJO TRIBAL INCOME - OIL AND GAS 1935-1960

Year	Lease Bonuses	Oil Royalties	Advance Royalty	Annual Rental	Helium Royalties	Natural Gas Royalties	Total
1935	$	$ 45,903	$	$ 3,600	$	$	$ 49,503
1936		55,918	160	800			56,878
1937		67,210		3,600			70,810
1938		69,110		3,600		1,113	73,823
1939		55,015		3,600		1,168	59,783
1940	1,501	43,282		500		1,250	46,533
1941		32,587		3,600		1,495	37,682
1942	3,720	29,831	3,600	4,650		3,193	44,994
1943	33,952	22,892	3,600	4,650		3,876	68,970
1944		19,936	3,600	4,750		4,633	32,919
1945	7,055	25,870	3,600	4,650		3,869	45,044
1946	-	31,221	-	8,250		3,523	42,994
1947	166,925	37,161		54,602		4,839	263,527
1948	861,317	46,740	300	121,585		5,189	1,035,131
1949	159,222	46,664		80,978	119,336	4,529	410,729
1950	227,828	41,771		107,385		1,947	378,931
1951	1,084,907	44,790		112,853		2,728	1,245,278
1952	1,173,115	41,150		211,224		3,057	1,428,546
1953	4,872,539	42,474		245,365		1,534	5,161,912
1954	4,392,536	39,898		877,767			5,310,201
1955	515,306	49,964		978,791			1,544,061
1956	300,658	114,008		1,048,160	16,871		1,479,697
1957	33,132,886	257,797		1,400,062		17,237	34,807,982
1958	26,589,883	800,000		1,772,835	32,000	38	29,194,756
1959	3,603,927	9,752,317		1,843,917		123,786	15,323,947
1960	685,500	8,834,759		1,659,044	4,602	504,741	11,688,646
Totals	$ 77,812,777	$ 20,648,268	$ 14,860	$ 10,560,818	$ 172,809	$ 693,745	$ 109,903,277

Prepared by Navajo Agency, Branch of Realty

sible that, in future years, direct benefits in the form of dividends or per capita distributions of Tribal income may become feasible, but this point has not yet been reached.

Aside from monetary benefits from oil and gas development, reflecting in tribal programs, the transportation and communications requirements of these new industries have spurred highway and bridge construction in areas of the Reservation that were virtually roadless as recently as four years ago. These, in turn, open the Reservation to travel and offer business opportunities that were previously unavailable.

Power Developments: Since 1950, a number of developments aside from oil, gas and uranium, have entered the Reservation scene. Of these, one of the most important is the Glen Canyon Dam in the northwest corner of the Reservation, construction of which began on October 15, 1956. A new town, named Page, has grown up where there was nothing in previous years, and about 1,000 workers have been employed since at the damsite on a construction project that will require about 10 years for completion. When completed, the huge structure will rise to a height of 573 feet above the bed of the Colorado River; it will be 1,500 feet long at the crest; and it will create a lake (to be known as Lake Powell) containing over 28 million acre

INDIVIDUAL NAVAJO INCOME FROM OIL AND GAS ON ALLOTTED LANDS 1950 - 1960

Year	Lease Bonuses	Oil Royalties	Natural Gas Royalties	Annual Rental	Total
1950	$ 87,011	$ -	$ -	$ 14,096	$ 101,107
1951	46,577	-	-	21,463	68,040
1952	166,819	-	-	49,447	216,266
1953	69,434	-	-	61,271	130,705
1954	191,287	-	5,788	81,497	278,572
1955	- -	-	8,830	89,798	98,628
1956	983,415	644	13,732	113,884	1,111,675
1957	1,790,980	49,162	16,728	125,133	1,982,003
1958	1,304,707	71,974	42,337	224,425	1,643,443
1959	335,584	554,362	66,354	226,444	1,182,744
1960	-	362,995	42,760	184,523	590,278
Totals	$ 4,975,814	$ 1,039,137	$ 196,529	$ 1,191,981	$ 7,403,461

Prepared by Navajo Agency, Branch of Realty

feet of water. Generators at the dam will produce 1,200,000 KW of electricity for industrial use, and the newly formed lake, extending for a distance of 186 miles behind the dam, will become a major recreational area. Since the area will be partly located within the Navajo Reservation, it will contribute to the economy of the Tribe while, at the same time, the Tribe through its Tribal Utility Authority will take advantage of power available from the generators at Glen Canyon Dam for industrial and domestic use on the Reservation.

Another major development at the close of the decade of the 1950's was the completion of leasing negotiations with the Arizona Public Service Company, which will lead to construction of a 350,000 KW generating plant to be known as the Four Corners Power Plant. It was under construction in the spring of 1961 at a point approximately six miles southwest of Fruitland, New Mexico, and is scheduled for completion in the late spring of 1963, at an estimated cost of $62,350,000. The new plant will use coal from nearby Reservation deposits, to be supplied by the Utah Construction Company which holds leases on about 25,000 acres.

Primary equipment will include two boilers and two 175,000 KW steam turbine generators; cold water to condense steam will be pumped from the San Juan River to a 1,200 acre artificial lake adjoining the power plant. At full load, the furnaces will consume 4,200 tons of coal per day. Transmission and switching facilities in conjunction with the plant will cost an additional $46 million, bringing total value of the investment to more than $100,000,000. This will include a 300 mile transmission line of 340,000 volt capacity to be constructed between the plant and

OIL AND GAS PRODUCTION - NAVAJO RESERVATION
1935 - 1960

Year	Acreage Under Lease	Number Producing Oil Wells Drilled	Total Number Producing Oil Wells	Number Producing Gas Wells Drilled	Total Number Producing Gas Wells	Gas Produced Thousand Cu. Ft.	Gross Oil Produced Barrels	Total Barrels Since First Production
1935	12,080	11	40	-	-	-	316,013	5,065,648
1936	12,880	8	38	2	2	94,987	340,978	5,406,628
1937	12,080	3	40	-	2	465,149	398,769	5,846,763
1938	12,080	13	45	-	2	399,004	322,896	6,219,660
1939	12,080	12	53	-	2	380,624	325,091	6,545,351
1940	12,480	8	56	-	2	445,591	296,156	6,841,507
1941	12,480	0	54	-	2	495,154	223,039	7,064,547
1942	13,800	0	48	-	2	849,454	188,695	7,253,243
1943	25,080	0	48	2	4	1,033,606	152,823	7,406,066
1944	13,800	4	53	1	5	1,284,207	132,879	7,538,946
1945	23,840	0	53	-	6	1,032,891	152,069	7,691,013
1946	18,920	2	49	-	6	939,604	160,150	7,851,164
1947	46,847	0	49	-	6	1,031,693	171,152	8,025,346
1948	81,695	2	49	1	7	849,445	158,978	8,184,324
1949	79,847	2	51	1	8	505,044	142,001	8,326,325
1950	87,908	0	51	-	8	436,268	133,173	8,459,498
1951	92,202	1	49	1	9	569,053	149,088	8,608,586
1952	178,859	0	47	-	9	355,388	133,983	8,742,569
1953	193,212	0	44	1	10	342,329	108,977	8,851,546
1954	704,134	0	46	-	10	390,156	121,338	8,972,884
1955	784,953	3	55	2	9	667,896	173,991	9,146,875
1956	847,728	6	54	5	14	1,135,419	354,397	9,501,272
1957	1,129,250	43	127	3	14	1,251,977	1,233,784	10,735,056
1958	1,418,268	111	238	4	18	888,223	1,329,713	12,064,769
1959	1,474,501	335	592	7	25	10,177,788	19,493,585	31,558,354
1960	1,423,659	268	860	1	26	18,556,360	34,272,928	68,831,283

The strip-mining of Reservation coal deposits will become a thriving industry in the 1960's, and - - -

The product will be used by thermo-electric plants, such as those at Joseph City, Arizona and Fruitland, New Mexico.

the Phoenix area. Some of the power produced by this development will be available at wholesale to the Navajo Tribe for industrial and domestic use on the Reservation, and a number of Navajos will find employment in construction phases, as well as in the production and transportation of coal.

Conclusion: The coming decade of the 1960's promises to be a period of intensive development on the Navajo Reservation, but one which will likely be fraught with many problems generated by the necessity for acceleration of cultural change by the Navajo people. In part, if industrial growth takes place as anticipated, there will likely be a continuation of the current trend toward urban living, in contradistinction to the prevailing rural pattern of life in the Reservation area. This shift, if it continues, will require community planning, credit for home construction purposes, school construction, additional roads, and many allied innovations.

Law Enforcement

Historical Aspects: Traditionally, Navajo society maintained order without the formality of established court and police systems. The traditional religious system placed great value on the maintenance of a harmonious relationship between man and his environment, and chaos was eschewed as a destructive force which, unless effectively curbed, could jeopardize human survival. A system of taboos and informal laws governed human behaviour or, at least, established rules to govern human behaviour and an ideal toward which society might strive.

To a large extent wrongs or injuries perpetrated by Navajos against fellow-tribesmen were settled by arbitration, including payment of goods to an aggrieved party. It is said that, when a person committed a wrong, the responsibility for the misdeed was not his alone, but extended even to his fellow-clansmen. As a result, family and clan relatives of the principals in a dispute were often called upon to arbitrate a mutually agreeable settlement. Sometimes, in the event of theft, for example, the aggrieved might assemble a group of friends and relatives and reclaim the stolen property by mainforce, although this method of settling disputes or righting wrongs was not consonant with Navajo philosophy based, as it was, on the transcending value of harmony.

In view of the scattered pattern of traditional Navajo life and the high degree of motivation for peace, crimes of violence were no doubt unusual in traditional society; in fact, crimes of violence are unusual in Reservation society even today in the absence of alcohol.

Aside from military contacts, the Spanish, and later the Mexican colonial governments, had little or no influence on the internal affairs of the Navajo Tribe. It was not until 1868 that the Tribe began to feel pressure for change brought to bear by an outside group in the form of the United States Government.

Following conclusion of the Treaty of 1868 and the return of the Tribe to its traditional homeland, problems attendant upon the maintenance of law and order mounted. A variety of factors were involved, including the unrest and insecurity generated by inadequate resources, the growing competition between Navajos and non-Indians for water and rangeland situated outside the Reservation, the construction of the Atlantic and Pacific Railroad, the growing introduction and use of liquor, and the behaviour of certain tribal leaders who were opposed to education and to other changes introduced by the Federal Government. To cope with these situations the Agents utilized troops if the gravity of the situation justified such extreme measures, or relied on Indian police under their command for the solution of lesser problems. Disputes were often brought before the Agent for settlement, and for many years these representatives of the Federal Government functioned to enforce law and order as well as to sit in judgement with reference to disputes. There were few alternatives to such an approach, in view of the unsettled conditions of life along the western frontier. Of course, many controversies continued to be resolved locally at an inter-family or inter-clan level, but with the gradual introduction of Anglo-American laws and concepts, there developed a growing complex of situations with which the traditional mechanism was not wholly equipped to cope effectively and, into this sphere moved the Agent, and later the courts.

Over the course of the centuries which have passed since the first contacts took place between members of the Navajo Tribe and incoming Spanish colonists, a process of cultural change has been in progress. It has involved the incorporation of a large number of items of material culture from surrounding non-Indians (clothing, metal, firearms, wagons, automobiles, etc.) as well as non-material institutions (Christianity, schools, courts, non-Navajo laws, elective governments, etc.). In general, the new introductions and the changes which have taken place, have assisted Tribal members to make necessary adjustments and adaptations as required by the changing environment. However, no society possesses the prescience necessary to discriminate effectively between those introductions which are beneficial and those which may prove to be detrimental, and among the elements of non-Navajo culture which the Tribe has accepted to its disadvantage has been that of the use of alcoholic beverages. The experience of the Navajo Tribe in this regard is not dissimilar from that of other Indian groups across the years since the advent of Europeans, and the social problems associated with drinking in the Navajo Country remain a matter of deep concern to the Tribe.

More than 80 years ago, in 1880, acting Navajo Agent Bennet complained that, "The crying evil that most besets this people is whisky. There are several traders at nearby points ranging from 40 to 100 miles from the Reservation where whisky of the vilest description is dealt out to these people in open violation of the law, being an incentive to crime and greatly impoverishing many of them. Decisive and prompt measures should be adopted by the Government to put a stop to this nefarious traffic, otherwise results of the most deplorable character may eventuate."[1]

Agent Bennett, at the same time observed that, "Outside of this aspect of the question no community of like population will exhibit so small a record of criminal acts of a flagrant character as the Navajos."

The Federal Government has long been cognizant of the social and economic problems created by the excessive use of alcohol on the part of Indian Tribal groups and the plea of an Indian Chief[2] to President Jefferson in 1802 led to the enactment of legislation designed to curb the liquor traffic with Indians. Initially, the President was empowered to take such measures as might be necessary to control the sale or barter of liquor to Indians, but on July 9, 1832, Congress passed an Indian Prohibition Act (C. 174, 4 Stat. 564). Later enactments broadened the provisions for prohibition and enforcement until August 15, 1953, when the President signed Public Law 277 (67 Stat. 586), repealing the law on the sale of intoxicating beverages to Indians *outside* of the Indian Country and providing for local option on Indian Reservations within the framework of applicable state laws. The constitutions of Arizona and New Mexico embodied disclaimer clauses with relation to the sale of liquor to Indians, but Public Law 277 permitted necessary constitutional amendments by the states, if the latter so wished, to legalize the sale of liquor to Indians in areas located outside the reservations.

Indian prohibition laws had been no more effective across the years than were similar laws on a nation wide basis. A flourishing contraband or "bootleg" traffic provided alcoholic beverages to Navajo and other Indians, both on and off the Reservation, from treaty times on to the 1950's, albeit surreptitiously and at high prices for inferior products. Indian veterans had not been subject to the application of discriminatory liquor laws during the period of their service in World War II; tribal members wished to be endowed with all the rights and privileges of state and national citizenship; and the avowed policy of the Federal Government, after 1950, emphasized the preparation of Indian groups for full integration at the earliest possible date. In addition, prohibition laws applicable to Indians had never proven to be fully enforceable. The proponents of repeal took the position that, with time and experience, excessive use of alcoholic beverages would constitute no greater problem among Indian minorities than it does within the non-Indian population. Also, after 1950, the spreading wage economy, road construction in the Reservation area, and rapid increase in the number of motor vehicles in the possession of Navajos made enforcement of Indian prohibition laws even less practicable than it had been previously.

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[1] Navajo Agency Letterbook - 1880

[2] Handbook of Federal Indian Law - Chapter 17.

Accordingly, on September 15, 1953, the state of New Mexico conducted a referendum election and amended the state constitution to repeal the prohibition against sale of liquor to Indians resident in the state, outside the reservations; about a year later, on November 2, 1954, the state of Arizona followed suit. However, in Arizona, the resale of intoxicating beverages *within* the Indian Country remained under prohibition by terms of the constitutional amendment until July 1, 1957.

Adequate data are not available upon which to base a comparison of the post-prohibition era with the preceding period in terms of the incidence of crime, alcoholism and problem drinking. The Navajo Reservation area was probably inadequately policed prior to the latter part of the 1950's, and records maintained by the Courts of Indian Offenses prior to the mid-1950's are not generally available. Suffice it to say that responsible Tribal leaders have characterized problem drinking as a social problem of the first order and, in 1960, the Council established a Committee on Alcoholism to study means of coping with the complex of problems created by excessive use of alcohol.

The following tabular summary, Table I, prepared by the Navajo Police Department, reflects the effect of excessive drinking on social order within the Navajo Country for the period 1958-60, inclusive, and the incidence of crime shown for this period can be contrasted with Table II which reflects comparable data for 1941:

The Tribal Committee on Alcoholism has attacked the problem, with the active assistance of the Gallup Indian Community Center, the New Mexico Committee on Alcoholism, and a large number of knowledgeable state and civic leaders in this

Table I

CRIMES

COMMITTED UNDER THE INFLUENCE OF ALCOHOL

OFFENSE	1958					1959					1960				
	MALE		FEMALE			MALE		FEMALE			MALE		FEMALE		
	YES	NO	YES	NO	TOTAL	YES	NO	YES	NO	TOTAL	YES	NO	YES	NO	TOTAL
MURDER	6	0	1	0	7	13	6	0	7	26	4	1	0	0	5
MANSLAUGHTER	9	0	4	5	18	2	1	1	0	4	4	0	1	0	5
RAPE	6	0	4	1	11	14	0	10	4	28	15	0	11	4	30
ASSAULT TO KILL	1	1	0	0	2	0	0	0	0	0	2	0	1	0	3
ARSON	5	0	3	2	10	5	0	3	2	10	3	3	0	2	8
BURGLARY	0	1	0	1	2	0	27	0	16	43	0	15	0	12	27
LARCENY	4	1	0	1	6	10	17	1	1	29	20	7	0	8	25
ROBBERY	3	0	1	0	4	4	0	1	0	5	1	0	0	0	1
ASSAULT-DEADLY WEAPON	17	0	5	5	27	32	0	1	3	36	17	0	0	7	24
EMBEZZLEMENT	0	0	0	0	0	0	2	0	0	2	0	4	0	1	5
INCEST	2	0	0	2	4	3	0	0	3	6	0	3	0	2	5
LIQUOR VIOLATION	10	0	5	0	15	3	0	1	0	4	3	0	0	0	3
ASSAULT	27	0	2	0	29	30	0	4	0	34	14	0	6	0	20
SUICIDE	7	0	0	0	7	0	7	0	1	8	0	6	0	0	6
ATTEMPTED SUICIDE	1	0	1	0	2	2	0	0	0	2	0	1	0	1	2
JUVENILE CRIMES NO LISTED ABOVE	59	9	8	0	76	241	50	32	5	328	77	13	7	0	97
DRIVING	16	13	3	0	32	17	0	5	0	22	16	0	4	0	20
TOTAL	173	25	37	17	252	376	110	59	42	587	176	53	30	37	296

field. In 1960, the Tribal Committee sponsored a general conference held at Window Rock at which experts and other persons interested in the field of alcoholism explored this subject from the viewpoint of the sociologist, the law enforcement officer, the medical worker, the religious worker and others. The analysis and divergent recommendations of each of these specialists were reviewed and discussed by the group, but aside from the encouragement of a rehabilitation program involving rest home care, the formation of Chapters of Alcoholics Anonymous on the Reservation and the possibility of more effective control through Council action to repeal prohibition on the Reservation, the magnitude and complexity of the problem offered no simple solution.

As reflected in the preceding tabular summary, crime and violence in the Reservation area are largely associated with the

CRIMES TRIED IN COURTS ON
NAVAJO RESERVATION 1/
1941

Table II

OFFENSE	NUMBER OF ARRESTS	PROPORTION OF ALL INFRACTIONS	NUMBER OF CONVICTIONS
I. LIQUOR-DRUKENNESS			
Disorderly Conduct	385	34.3%	365
Reckless Driving	24	2.2	22
Liquor Violations	177	15.8	171
TOTAL	586	52.3	558
II. SEX-DOMESTIC REL.			
Illicit Cohabitation	27	2.4	25
Giving VD to another	6	0.5	6
Fail. Support Depend.	26	2.3	23
Contrib. Delinq. Minor	10	0.9	10
Attempted Rape	9	0.8	6
Adultery	84	7.5	71
TOTAL	162	14.4	141
III. LIVESTOCK, GRAZING			
Misbranding	2	0.2	2
Cruelty to Animals	3	0.3	1
Intro. Stock wo/Permit	1	0.1	1
Unauth. Use Range	7	0.6	7
Failure Dip Sheep	1	0.1	1
Inter. Dist. Trespass	6	0.5	4
Graze wo/Permit	6	0.5	5
Refuse to Brand	19	1.7	19
Interfer w/Roundups	24	2.2	23
Trespass Dem. Areas	7	0.6	5
TOTAL	76	6.8	68
IV. COURTS AND OFFICERS			
Perjury	7	0.6%	7
Resisting Arrest	30	2.7	30
Escape	27	2.4	27
Disobed. to Court	32	2.8	26
Contempt of Court	7	0.6	7
TOTAL	103	9.1	97
V. MISCELL. VICE			
Disorderly Conduct	11	1.0	6
Gambling	2	0.2	2
Peyote Violations	3	0.3	2
TOTAL	16	1.5	10
VI. CRIMES AGAINST PROPERTY			
Theft	60	5.4	52
Embezzlement	1	0.1	1
Receive Stolen Prop.	6	0.5	3
Malicious Mischief	13	1.2	5
Injury - Pub. Property	14	1.2	13
TOTAL	94	8.4	74
VII. CRIMES AGAINST PER.			
Assault	13	1.2	8
Assault & Battery	70	6.2	57
Abduction	1	0.1	1
TOTAL	84	7.5	66

1/ Adapted from table on Page9 of Report of Survey of Law and Order Conditions of the Navajo Indian Reservation, by John S. Boyden, Assistant U.S. Attorney and William E. Miller, Special Agent, F.B.I. Publ. in mimeo March 23, 1942.

intemperate use of alcohol. Of all the crimes and other causes of disorder reflected in the tabular summary, it will be noted that, in 1958, 83% involved excessive drinking; in 1959, 74% involved alcohol; and in 1960, 70% were committed while under the influence of intoxicants. It was likewise the observation of investigators in 1942[3] that most of the cases involving violence and disorder coming before the Courts of Indian Offenses, involved liquor. In this regard it was observed that "about fifty percent of the crimes handled by the police are liquor violations, either by way of disorderly conduct through intoxication, drunken driving or the usual cases involving possession, sale, manufacture or introduction of liquor. Sex and domestic relations cases seem to be second in importance, at least insofar as numbers are concerned."

NAVAJO LAW AND ORDER

MAJOR CRIMES - 1957-1960

WITH FINAL DISPOSITION 1/

	PRESENTED FOR FEDERAL PROSECUTION				CONVICTION IN FEDERAL COURT				ACQUITTALS IN FEDERAL COURT OR PROSECUTION DECLINED				PENDING ACTION IN FEDERAL COURT				REMANDED FOR DISPOSITION IN NAVAJO COURTS 3/			
	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960	1957	1958	1959	1960
MURDER 2/	5	4	12	4	1	1	10	2	1	0	1	2	0	3	0	0	0	0	0	0
MANSLAUGHTER	2	1	0	3	0	1	0	1	0	0	0	2	0	1	0	0	2	10	0	0
RAPE	7	8	8	23	0	1	1	1	0	0	0	0	0	1	0	3	7	6	0	19
INCEST	1	1	3	1	0	0	0	0	0	0	3	1	0	0	0	0	1	1	0	0
ARSON	4	0	5	5	0	0	1	0	0	0	4	5	0	0	0	0	4	0	0	0
ASSAULT, INTENT TO KILL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ASSAULT-DEADLY WEAPON	11	37	24	32	0	2	0	2	0	0	15	28	1	0	0	0	10	35	9	2
BURGLARY	6	12	39	59	1	1	4	5	0	0	39	49	0	0	0	0	5	11	6	5
LARCENY	5	10	0	60	1	1	0	0	1	0	0	54	0	0	0	0	2	9	0	6
ROBBERY	1	0	3	3	0	0	1	0	0	0	2	3	0	0	0	0	1	0	0	0
FEDERAL LIQUOR VIOL.	1	3	2	16	0	3	2	9	0	0	0	3	0	0	4	0	1	0	0	0
EMBEZZLEMENT	0	1	0	8	0	0	0	1	0	0	0	6	0	0	0	0	0	1	0	1

1/
Provided by Navajo Police Department
2/
Includes 3 Cases of suicide and murder in 1957
3/
Lack of evidence and other factors result in referral of cases back to the Navajo Courts for processing as lesser offenses.

LAW AND ORDER STATISTICS

FROM RECORDS OF NAVAJO POLICE AND TRIBAL COURTS 1/

BY YEAR AND TYPE OF OFFENSE

TYPE OF OFFENSE	INCIDENCE BY YEAR									
	1941	1952	1953	1954	1955	1956	1957	1958	1959	1960
ASSAULT	13	70	62	78	70	74	86	178	83	60
ASSAULT & BATTERY	70	118	106	93	113	126	164	191	274	395
THEFT	60	21	16	15	14	32	26	38	43	48
DISORDERLY CONDUCT	396	3,325	3,622	3,610	3,706	3,736	3,719	4,980	7,097	7,359
RECKLESS DRIVING	24	141	168	162	152	326	351	390	359	329
LIQUOR VIOLATION	177	1,343	1,145	1,321	1,223	1,356	1,368	1,585	1,439	1,658
ADULTERY	84	58	63	70	68	89	96	132	81	52
ILLICT COHABITATION	27	85	78	82	90	116	145	166	74	124
FAIL. TO SUPP. DEPEND.	26	216	220	210	218	189	172	176	165	208
RESISTING ARREST	30	203	198	216	222	152	168	188	79	251
DISOBED. TO COURT ORD.	32	168	159	153	162	108	115	141	70	92
PEYOTE	3	96	89	102	99	86	91	97	70	38
DIVORCE		48	42	85	84	76	80	89	94	85

1/
Provided by the Navajo Police Department with exception of data for 1941. The latter was derived from a survey of Law and Order on the Navajo Reservation conducted, in 1942, by Assistant U.S. Attorney John Boyden and William E. Miller, Special Agent, F.B.I.

[3] Report of Survey of Law and Order Conditions on the Navajo Indian Reservation, by John S. Boyden, Assistant U.S. Attorney and William E. Miller, Special Agent FBI, publ-in-mimeo. March 23, 1942; p.8.

The number of arrests for disorderly conduct and liquor violation on the Reservation area, has grown steadily from 6,565 in 1958 to 8,536 in 1959 and to 9,017 in 1960. However, this growth reflects to no small degree the expanding Tribal police system rather than an actual increase in the incidence of this type of disorder. Nonetheless, cases of the type identified above constituted 79.5% of all cases processed by the Tribal Courts in 1958, 85.9% in 1959 and 84.3% in 1960, with fines and court costs totalling $104,606, $93,558 and $119,975 for the same years, respectively. In addition, the cost of policing the Reservation area, borne by the Navajo Tribe, has risen progressively from $586,923 in 1958, to $786,766 in 1959, and to $1,170,864 in 1960—a per capita investment in the control of disorder estimated at slightly more than $13.00 for every Navajo man, woman and child on the basis of a total Navajo population (living on and off the Reservation area) estimated at 88,000 in 1960—exclusive of the cost of building, manning and maintaining jails and police stations throughout the Navajo Country. Thus, the problem posed by excessive drinking is a costly one, not only for the national population, but to an even greater extent for the Navajo people—especially so in view of the fact that crimes of violence are so frequently associated with drinking in the Reservation area.

The causes to which problem drinking in the Reservation area may be attributed are many and varied. In 1959, Navajo Agency and Subagency Social Workers investigated a representative proportion of the Navajo men and women with records of repeated arrests for drunkenness in Gallup, New Mexico. In many instances the reasons given appeared to be idleness, boredom and the need for companionship on the part of persons lacking steady employment and on whose hands time hung heavily. In other instances, domestic problems and frustrations of other types appeared to be the cause. Problem drinking is often associated with a pattern which developed before the repeal of Indian Liquor Laws, at which time alcoholic beverages were secured from bootleggers and consumed as rapidly as possible by the purchasers in the interest of avoiding arrest for possession of contraband. There are many complex problems involved during this period of transition from the traditional society to one which incorporates a wider variety of the values and other elements of non-Navajo culture, but it is the hope of Navajo leaders generally that educational progress and the establishment of a new economic base for the Reservation people will be accompanied by a decrease in the incidence of social disorder attributable to the use of alcohol.

The Navajo Tribe has not yet acted to repeal existing prohibition laws on the Reservation. The Council is proceeding slowly and carefully, studying the experience of other Indian Tribes whose Councils have opened the Reservation to the sale of liquor, and weighing the policing of drinking establishments located on the Reservation against the possible compounding of an already difficult problem.

In a society which traditionally values peace and harmony, violence even when associated with drinking, may appear paradoxical. However, a great many cases classified as liquor violations involve only the illegal possession or use of alcoholic beverages on the Reservation, and within a Reservation population of nearly 80,000 persons, those involved in criminal actions represent a very small proportion of the total group. Further, many of those who commit offenses are repeat offenders, arrested more than once in the course of a year, and arrested from year to year. The principle of harmony and peace remains a powerful factor in Navajo thinking, and most of the people are never involved in serious cases of disorder or crime. There are nonconformists in every social group, and the Navajo are not an exception. However, the main body of the Tribe is concerned about the aberrant behavior of this non-conformist group, and is especially concerned that this segment of the population may be increasing. Lastly, the main body of the population is deeply disturbed about the relationship between alcohol and crime, and is seeking a means through which to minimize the over-use of alcoholic beverages by Tribal members.

The Navajo Police System: Until 1953, the maintenance of law and order in the Reservation area was the responsibility of the Bureau of Indian Affairs. This responsibility was discharged to the extent possible through the medium of a small force of officers paid from Federal gratuity funds. The law enforcement system lacked the required strength of numbers, as well as necessary equipment, courts, and jail facilities. In view of the limited Federal appropriations available for enforcement purposes, there was little possibility of improving the system. By 1953, the need for police protection in the area of allotted lands east of the Reservation boundary in New Mexico was especially acute. The status of the land in this checkerboarded area was such that serious jurisdictional problems frequently arose—crimes committed on state and private non-Indian land fell under the jurisdiction of the State Courts and enforcement agencies; those committed on the public domain or on Indian allotments were the responsibility of Federal courts and enforcement agencies. The state was financially unable to accept the

NAVAJO LAW AND ORDER

FINANCING[1]

1952-1961

	SOURCE OF FUNDS			
YEAR	TRIBAL	FEDERAL	COURT FINES	TOTAL
1952	$ 8,000[2]	$ 57,497	$ 64,284	$ 129,781
1953	21,000	57,497	65,186	143,683
1954	198,536	57,497	67,232	323,265
1955	243,667	57,497	70,794	371,958
1956	286,657	101,541	72,804	461,002
1957	544,472	101,541	80,141	726,154
1958	586,923	104,606	86,874	778,403
1959	786,766	89,000	93,558	969,324
1960	1,170,846	0[3]	119,976	1,290,840
1961	1,305,749	0[3]	82,200	1,387,949

[1] Provided by Superintendent, Navajo Police Department

[2] Includes Supplemental court fines

[3] Federal funds available after 1960 are not available as a contribution to the support of the Tribal Police system, but are used to maintain the Navajo Agency Special Officer and his staff, to discharge those responsibilities that remained with the Bureau of Indian Affairs.

burden of law enforcement throughout this extensive area of Navajo occupancy, but agreed to cooperate provided the Navajo Tribe would agree to hire and equip six Navajo policemen to serve in the "checkerboard" area. This was the beginning of the Navajo Tribal Police system. The growth of this system is reflected in the following summary of annual Tribal appropriations for the operation of the Police Department:

Actually, although financed to an ever increasing extent by Tribal appropriations, the Police Department continued to function under the Supervision of the Federal Government, as the Branch of Law and Order, Navajo Agency, until January 6, 1959, at which time the Tribal Council adopted a resolution (No. CJA-1-59) requesting the transfer of law enforcement responsibility to the Navajo Tribe, with the exception of those aspects which, by law, remain vested in the Federal Government. The Tribal resolution was approved on February 11, 1959, by the Commissioner of Indian Affairs and this activity has, since that date, been primarily a Tribal function. In accepting the responsibility the Tribe agreed to accept certain parts of the Law and

Order Code as set forth in 25 CFR, Sec. 161.1-163.306, until such time as a revised code may be completed by the Tribal Legal Department and approved by the Secretary of the Interior.

Until 1955, the Police Department was centralized functionally at Fort Defiance, but following the establishment of the five Subagencies in that year, the Police system was decentralized to provide District Captains and necessary enforcement personnel at a Subagency level.

Communications are expedited throughout the Navajo Country by an elaborate system of police radios utilizing four land-based transmitters, five repeater stations and more than 97 mobile units.

The number of enforcement officers, investigative and other personnel has increased apace, especially since 1957. Thus, in 1958, the Tribe paid the salaries of 93 enforcement and 15 administrative personnel, while the Federal Government financed seven positions, including that of the Chief of Police (Agency Special Officer). In 1959, the number of officers paid by the Tribe was increased to 127, and in 1960 to 148. A year later, in 1961, it rose to 178 officers.

In 1959, a Detective Division was organized and staffed with one captain and two detectives to investigate reports of serious crimes. In 1960, a Liquor and Vice Unit, as well as a Traffic Division, were activated and in the same year new, modern police and court buildings were under construction at Shiprock, Tuba City, Tohatchi and Lupton. These were completed and construction of police substations was under way in 1961 at Navajo Springs and Chinle. Installations completed at Lupton and Tohatchi also function as police substations and holding jails.

This police system, more modern and better equipped than many comparable systems outside the Reservation, stands in sharp contrast with the department described by John Boyden in 1942.[4] In his report of survey he stated that "at the present time (1942) the Navajo Patrol consists of four Chiefs of Police, although present organizational plans provide for two additional Chiefs of Police to be established at Leupp and Pinon, Arizona. In the absence of sufficient personnel, the policemen theoretically under headquarters at Keams Canyon and Pinon have a connection with the Fort Defiance Organization. The headquarters at Leupp has a force of three policemen without a Chief. There are eighteen policemen in the entire system, exclusive of Chiefs of Police, who are employed regularly from the Agency funds, and ten enrollees of the Civilian Conservation Corps —

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[4] Op. cit.

Indian Department assigned to police work."

The 1942 organization, composed of four Chiefs of Police headquartered at Fort Defiance, Tuba City, Crownpoint and Shiprock operated under the direction of the Chief of Navajo Patrol, headquartered at Window Rock and directly responsible to the General Superintendent, Navajo Agency. This police system, in turn, was first established in 1936, but prior to that time the police "force" was described as one consisting "largely of people who were employed as interpreters or on other work. There was practically no respect for Law and Order, practically no arrests were made prior to that time (1936) --"[5] However, this characterization is tempered by the fact that the Navajo people of the 1930's lived largely within the traditional culture, there was little money, few roads and few automobiles in the Reservation area. As a result, the incidence of social disorder was minimized by the fact that the people gathered with less frequency than at present, and many Navajos rarely or never visited the surrounding towns. A larger law enforcement organization was not required under those conditions of life, as compared with the modern society of today.

Today, however, with paved roads, transportation and a faster tempo of life, the magnitude of the law enforcement problem has increased many fold and, in an effort to maintain harmony and order, the Navajo people are willing to support a relatively large police system. Social pressures of a type which still prevail in middle class American Society were probably never as strong and effective as a parallel force for the control of aberrant behaviour among the Navajo as they were within the non-Indian population in most areas of the country, even where values and accepted norms of behaviour coincided closely, and the concept of coercion through the medium of laws and courts was foreign to the Navajo way of life until recent years. In fact, although inhibited by traditional rules governing personal behaviour, individual persons are generally considered to be free agents, from a traditional point of view, and one did not feel inclined to impose his will on another person to the same extent as members of the non-Indian society do in their community interrelationship. As a result, Tribal members seek a medium for the maintenance of social order in an impersonal agency with the workings of which they are not directly concerned or identified. Likewise, on the traditional premise that all men, by nature, are composites of good and evil, there is less tendency in the traditional society to

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[5] Op. cit. - p. 30, in a statement of C. H. Powers, Conservation Supervisor, Navajo Service.

punish a person for wrongdoing to the extent of social ostracism on the premise that his action was wilful and therefore inexcusable, than there is in some segments of non-Indian society. Once amends are made, he is more likely to be forgiven and returned to the good graces of the group than he is to be ostracized or persecuted. Thus, his status and prestige are not likely to suffer from a jail sentence even though the group or community to which he belongs may agree that the action that caused his incarceration did not constitute acceptable behaviour — nor is the prospect of incarceration as strong as a deterrent to law breaking as it is in middle class, non-Navajo society.

The following table contrasts the Navajo law enforcement system with those serving several states and local areas, although due to the peculiar conditions of rural life in the Reservation area, the problems involved in law enforcement are not totally comparable.

LAW AND ORDER STATISTICAL MATERIAL

ORGANIZATION	NAVAJO TRIBE	NEW MEXICO	ARIZONA	OREGON	WYOMING	UTAH	COLORADO	MAINE	LOS ANGELES COUNTY, CALIF.
OFFICERS	127	150	186	415	71	101	337	240	2,600
AREA COVERED-SQ.MI.	25,000	122,000	113,909	96,981	95,000	84,990	104,247	33,040	3,145
COST	$1,170,865	$1,500,000	$1,633,760	$3,364,025	$850,000	$925,000	$2,739,545	$1,096,179	$20,768,708
TOTAL PERSONNEL	148	191	215	493	76	121	447	285	3,450
VEHICLES	73	160	189	268	77	111	384	235	400
ARRESTS	6,581	79,335	77,325	31,481	6,065	26,000	104,828	20,104	40,413
POPULATION COVERED	85,000	900,000	1,150,000	1,726,000	350,000	688,862	1,711,000	952,000	2,000,000
FINES COLLECTED	$586,821	$2,152,641	$961,185	$290,287	$173,803	$412,781	$953,885	$404,286	NOT AVAILABLE

PREPARED BY THE NAVAJO POLICE DEPARTMENT

The Reservation Court System: As mentioned in a foregoing paragraph, at an earlier period the Agents in charge of the affairs of the Navajo Tribe acted as judges in the settlement of many types of civil and criminal disputes, except with relation to those cases which involved one of the eleven major crimes. These were taken out of the jurisdiction of the Indian Tribes, and by extension, out of the hands of Agents, during the period 1885 to 1952, and include the crimes of murder, manslaughter, rape, assault with intent to kill, arson, burglary, larceny, robbery, incest, assault with a deadly weapon and embezzlement of Tribal funds. Many civil and criminal disputes were, and continue to be resolved by family and clan groups and, with the establishment of the Chapter system after 1924, the arbitration of disputes became a function of these "grassroots" organizations. During the 1930's Courts of Indian Offenses were established, manned by six judges appointed to office by the Commissioner of Indian Affairs with the confirmation of the Tribal Council.

During the period 1951-1959 the judges were elected to office by popular vote in the course of Tribal elections, and subsequently to the latter date, the procedure has provided for their appointment on a lifetime basis following successful completion of a two year probationary period.

Seven judges, including a Chief Justice, preside over courts located at Fort Defiance, Chinle, Tuba City, Shiprock, and Crownpoint, and at a number of circuit courts in other Reservation localities. None of the present Tribal Judges holds a law degree, although all are well informed with regard to Tribal custom. They utilize the Law and Order Code based on certain sections of the Code of Federal Regulations, 25 CFR 11, as amended, and act on a variety of civil matters, including divorce, inheritance, adoptions, the probate of estates, exclusive of trust property, etc., as well as misdemeanors and minor criminal offenses.

In recent years the Tribal Legal Department has played an active role in the training of the judges, as well as in the improvement and formalization of court procedure along the lines of non-Indian courts. In fact, the handling of civil and other types of disputes by the Chapters, or by family and clan groups is discouraged, on the premise that these are properly matters for the courts. The Tribal Courts do not assume jurisdiction over non-Indian defendants, although in civil cases involving indebtedness of a Navajo to a non-Navajo creditor there is provision whereby the latter may bring suit for collection in the Tribal Courts. The trend is generally toward closer harmony and integration with non-Indian laws and judicial procedures.

Certain cases at law, decided by the Supreme Courts of Arizona and New Mexico, as well as by the Supreme Court of the United States, have had the effect of clarifying and firmly establishing the jurisdiction and prestige of the Reservation courts. In Begay v. Miller, 70 Arizona 380, 222 P2d 624, it was held that the courts of Arizona are compelled to recognize the judgments of the Navajo Tribal Court. This case involved a judgment of divorce between a Navajo Indian and his wife, married under a license issued by a clerk of the Superior Court of Arizona.

Likewise, the case entitled *In re Denetclaw*, 83 Arizona 299, 320 P. 2 d 697, held that the State of Arizona does not have jurisdiction over an offense committed by a Navajo Indian while on the reservation. This case involved a violation of a state traffic law on a segment of highway situated within the exterior boundary of the Navajo Reservation, and the finding clearly established the jurisdiction of the Tribal Courts over members of the Tribe arrested for offenses committed on highways or rights-of-way located within the exterior boundaries of the Reservation.

Finally, the decision of the Supreme Court of the United States, in 1958, in the case of *Williams* v. *Lee*, upheld the decision of Chief Justice Marshall, in 1832, in the case of *Worcester* v. *Georgia*. The historic 1958 decision clearly reaffirms the fact that the state courts (Arizona) lack jurisdiction of a suit brought against a Navajo Indian by a federally licensed non-Indian trader to collect a debt incurred by a Navajo Indian on the Reservation. The Supreme Court of Arizona, whose ruling was reversed by the Supreme Court of the United States, had decided that the Arizona courts are free to exercise jurisdiction over civil suits by non-Indians against Indians though the action arises on an Indian Reservation.

Public Law 280, (67 Stat. 588) enacted by the 83rd Congress, provides the consent of the Federal Government for the extension of civil and criminal jurisdiction by the states to Indians and Indian lands. However, many states, including those within which the Navajo Country lies, have not acted to assume such jurisdiction because of the fact that they must concurrently assume the cost of law enforcement and the operation of courts. Bills have been introduced into Congress to permit piecemeal assumption of jurisdiction (H.R. 4756 - 87th Congress for example), and to provide for Federal subsidies to states willing to assume the responsibility for law enforcement on Indian reservations (S. 381, for example). To date, legislation of these types has not been adopted by the Congress, and the jurisdiction of Tribal Courts and enforcement agencies remains clearly established in the Navajo Country.

The Branch of Law and Order — Navajo Agency: With its rapid assumption of financial responsibility for the operation of the Reservation police system over the period 1953-59, the Navajo Tribal Council demanded a greater voice in the management and direction of the police. This activity remained under the control and direction of the Bureau of Indian Affairs, although most of the personnel were paid from Tribal funds.

In May, 1958, the Tribal Council adopted a resolution requesting that the Secretary of the Interior transfer to the Navajo Tribe his authorities for the maintenance of law and order on the Reservation, with the exception of the continued exercise of responsibilities for the enforcement of Federal laws applicable to the Reservaton. The resolution in reference was not acceptable in its original form, and it was remanded to the Council for necessary amendment. The latter action was taken by the Council in January, 1959, after which the Branch of Law and

Order, Navajo Agency, separated itself functionally from the Navajo Police Organization.

However, a small staff of Federal officers has been retained by Navajo Agency, and this staff continues to exercise over-all responsibility to investigate and enforce, or assure the investigation and enforcement of, certain Federal laws, including those known as the eleven major crimes (18. U.S.C. Sec. 1153-1163-1164 and 1165). In addition, the Agency Branch maintains liaison with the Navajo Police Department, and exercises certain responsibilities which, by law, remain vested in the General Superintendent as the duly authorized representative of the Secretary of the Interior.

The small agency staff is inadequate for the personal enforcement of Federal laws throughout the Navajo Country. To augment the staff required for this purpose, authority was delegated to the General Superintendent to designate eleven personnel of the Navajo Police Department, who are commissioned as Deputy Special Officers, to carry out initial investigation of infractions of Federal laws in the Reservation area, and refer such cases as warrant further investigation or prosecution to the appropriate Federal or State law enforcement agency.

Welfare

Historical: The Treaty of 1868 limited the area of Navajo use to approximately 3.5 million acres, and subsequent additions to the Reservation did not compensate for economic losses sustained by the Tribe, especially in the face of rapid increase in population. The Treaty itself provided grants in aid for members of the Tribe for a period of ten years, in the form of clothing, tools and other necessities, and for subsistence purposes during the first winter after their return from Fort Sumner provision was made for the purchase of 500 beef cattle and 1,000,000 lbs. of corn "for relief of the needy."

As early as 1873, Thomas V. Kean, the Special Agent for the Navajo Tribe advised that, if the Tribe were held strictly within the Reservation boundaries, it would soon be necessary for the Federal Government "to maintain them by annual subsidy."

By the close of the decade of the 1870's, the creation of a market for wool gave rise to a shortlived period of prosperity for the Tribe, but it was one in which the struggle for additional land became especially acute. Some of the best sources of water were lost to the Tribe during the 1870's and 1880's, and overgrazing of available range resources during the years which followed resulted in gradual destruction of the Tribal economy.

The course of events and the conditions during the early post-Treaty period are mentioned in a letter of February 7, 1883, in which Dennis Riordan, Navajo Agent, wrote Commissioner Price to the effect that "I warn the Government now, that any attempt to compel the Navajo to live upon their own resources within the limits of this Reservation defined upon the map, will surely prove disastrous to all concerned. It is a simple impossibility for 17,000 people to support themselves by grazing on the country embraced within the limits stated. Of course, the Navajos have grazed their herds off the Reservation the past years and of course they had to give up fertile tracts which they have used undisturbed and with tacit consent of the Government since they were children. But they will have to go nevertheless. The railroad limit (40 miles) cuts off some of their fairest lands, outside the Reservation. - - - - - I doubt if 500 whites with all of the appliances of civilization could live on the same ground (the reservation) without subsistance. How in the world are you going to compel 17,000 Indians to do it?"

Ten years later, in 1893, Navajo Agent Edwin H. Plummer, called the attention of the Commissioner to the poor economic conditions prevailing on the Reservation, pointing out that "the idea that the Navajos are self-supporting is certainly erroneous — unless subsisting on cattle of white people can be called self-support. Their principal diet is meat, and they never use their ponies or sheep for food if they can get beef by stealing. They are poor and getting poorer, and unless assisted materially very soon they must be fed by the Government or forced to increase their stealing. Their flocks have been largely diminished by sale, sickness and occasional use for food. The greater majority have no visible means of support at all, and must live on stolen cattle, through stealing ponies and horses, or on the fast diminishing herds of others."

In 1914, Fr. Anselm Weber of St. Michaels, Arizona published a brochure entitled "The Navajo Indians — A Statement of Facts," in which he recounted Navajo land problems in detail, and in which he quoted Assistant Commissioner of Indian Affairs Meritt to the effect that "while they (the Navajo) have great potential resources, they are really suffering much of the time for want of sufficient subsistence and clothing."

In the steadily deteriorating economy, emergency measures were necessary from time to time to cope with crises resulting from drought or other severe climatic conditions. Assistance given, as on other Indian reservations, was in the form of commodities—rations, to use the army term held over from the days when the Indian Service was in the War Department.[1] Staples for relief purposes were ordered annually at the same time that orders were placed for similar supplies required by boarding schools and hospitals.

In 1928, a comprehensive study of the problems of Indian administration, commonly known as the Meriam Report was conducted by the Institute for Government Research at the request of the Department of the Interior. Among other recommendations, the report of this study group stressed the need for trained social workers in the Indian Service, and recommended the addition of social case worker positions. The next Commissioner, Charles J. Rhoads, appointed in 1929, initiated implementation of the recommendations of the Meriam Report by completely reorganizing the Office of Indian Affairs, grouping under two Assistants to the Commissioner various activities classed as "Human Relations" and "Property," respectively. By 1931, an experienced social worker, Robert T. Lansdale, was made Acting Assistant to the Commissioner for the coordination of all "Human Relations" activities. Under Mr. Lansdale the first social worker positions were established in the Indian Service, beginning in 1931. These positions were placed in the Division of Education and were called *school social workers* or *visiting teachers.*

It was not until June 12, 1941 that a further reorganization created a Branch of Community Services, including a Division of Welfare. Two years later, the first social worker position was established on the Navajo Reservation, followed during the year by the establishment of a second social worker position. Two former teachers in schools on the Navajo Reservation, after receiving training in graduate schools of social work, were assigned to these positions.[2]

The period of the 1930's was one of great social turmoil, due in large part to the national business and economic depression throughout the United States. It was especially acute on the Navajo Reservation in view of the delicate balance of the Tribal economy, undiversified as it was. The early years of the depression period emphasized the need for welfare assistance. To some extent, during this period, public works programs under the CCC-ID, the WPA, the PWA, and other similar wage work, minimized the need for direct relief.

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[1] The Office of the Commissioner of Indian Affairs was created in the War Department in 1832 and transferred to the Department of the Interior on its establishment in 1849.

[2] Mrs. Bessie Trowbridge Daly and Mrs. Ruby Tomlinson McDermott.

Although the Social Security Act was passed in 1935, and the States of Arizona, New Mexico and Utah established public welfare departments in 1936,[3] to administer the public assistance programs of old age assistance, aid to dependent children and aid to the blind, neither Arizona nor New Mexico included assistance to Indians under their State programs. Efforts to have needy Navajos included in these programs were continued throughout the 1940's. The Navajos were encouraged and assisted to make application at their county departments of public welfare. Later, full case histories, containing information to establish eligibility for categorical aid under the public assistance programs, were prepared and submitted for individual Navajos on a selected basis, not only to the respective county departments of public welfare and State welfare departments, but also to the Bureau of Public Assistance, Federal Security Agency, Social Security Board, by the Branch of Welfare of the Bureau of Indian Affairs in Washington, D. C. Conferences were held at all levels of Government. As a result, applications for public assistance were accepted both in Arizona and in New Mexico, although no payments were made immediately to eligible Navajos by the States.

A Bureau-wide cash assistance program was instituted on July 30, 1943 in place of rations. However, rations were still distributed on the Navajo Reservation, by district supervisors in charge of the land management districts, to individuals and families whom they certified as destitute. At the same time, an attempt apparently was made to supplement the commodity program with groceries provided to relief recipients through Reservation traders, the cost of which was met through the issuance of vouchers by Navajo Agency. It was not until 1945 that general assistance in the form of checks was extended to Navajos, in lieu of rations, and not until 1948 that the administration of the general assistance program was placed in the Navajo Agency Branch of Welfare.

A study, made in 1944 by a Navajo Social Worker in fulfillment of a thesis requirement for a master's degree in social work,[4] embracing 100 typical Navajo families living in 5 separate areas of the Navajo Country, disclosed the fact that 91 families were living below an acceptable subsistence level and, of these, 32 were destitute. The study emphasized the urgent need for an adequate social welfare program designed not only for the improvement of economic conditions, but also adequate to cope with the complexity of problems including child care, care of the tuberculous, and care of the blind, crippled and insane.

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[3] Arizona OAA program did not become effective until June 1, 1937. Arizona ADC and AB became effective February 1, 1936. New Mexico OAA, ADC and AB became effective April 1, 1936. Utah's OAA, ADC and AB became effective March 1, 1936.

[4] Thesis of Mrs. Ruby T. McDermott at University of Oklahoma, School of Social Work.

The case load average for the seven-year period, 1941-1947, was 552 families, totaling 2,165 persons. Monthly grants during this period were extremely low, ranging from $4.48 - $5.35 per family ($1.05 - $5.99 per person), and such aid was available only to emergency cases including the helpless, blind, the aged, the crippled, and destitute widows with dependent children.

To no small extent, the increase in the number of Navajos in need of assistance in the latter portion of the decade of the 1940's was made up of that segment of the Navajo population which had existed at a subsistence level in the years preceding stock reduction and controlled grazing, and whose precarious economy was destroyed in the economic upheavals of the 1930's, or during the ensuing war years. For a long time their predicament had been obscured by the temporary wage work of the depression period, and later by the job opportunities which became available outside the Reservation during the war for which many Navajos had left the Reservation for the first time. The dependency allotments given to the families of Navajos who joined the Navy, the Army and the Marines were also a factor in this regard. With the close of hostilities and the sudden change to a peacetime economy, these sources of livelihood disappeared, and the erstwhile wage earners, finding themselves without employment, were forced back to the Reservation where there were no resources available to them beyond such meager aid as kinsmen might provide. As a result, their plight became critical to the degree that it drew national attention to the economic problems besetting the Reservation area.

In October 1947, 3 Congressional Committees visited the Navajo Reservation. Assistant Secretary of the Interior William E. Warne joined one of the groups at the Reservation and presented, in very condensed form, the Department's long-range proposals for Navajo rehabilitation. The Navajo Agency General Superintendent, J. M. Stewart, observed that "the present problem has existed for many years, but has been so submerged by transitory stopgaps that it has not become apparent to the Indians and the general public until now . . . . The sudden cessation of emergency relief organizations (CCC-ID, etc.), wartime employment and servicemen's allotments, without adequate replacement by other sources of income, has permitted the problem to resurge and stand out so vividly by contrast with conditions prevailing during the preceding decade that it has come to public attention and assumed the aspect and proportions of a sudden crisis."[5]

In the fall of 1947, 450 Navajo families, out of an estimated 4,125, whose annual income was less than $750 were on the general assistance rolls of Navajo Agency, receiving an average grant of $13 per month, in contrast with approximately $56 per month which they would have received had appropriated Federal funds been sufficient to approximate comparable grants made by the State departments of public welfare in New Mexico and Arizona to recipients of public assistance.

It was pointed out in an agency report[6] that an estimated total of 10,100 persons were probably eligible for public assistance, including 1,800 aged people, 8,000 dependent children and 300 blind persons. In fact, a majority of the needy members of the Tribe were potentially eligible for public assistance under the Social Security Act since they clearly met the qualifications for aid to the needy aged, blind, or dependent children, but they were not accepted for public assistance by their States of residence.

On December 2, 1947, the President issued a statement on the emergency faced by the Navajos, and simultaneously released a report made to him by the Secretary of the Interior on the immediate relief measures being taken by the Bureau of Indian Affairs. The Secretary's report also set forth the need for long-range rehabilitation measures to prevent repetition of the emergency, and summarized the program then being prepared in the Department. The Special Session of Congress called by the President in November 1947, considered the Navajo situation and enacted Public Law 390, which authorized (but did not appropriate) $2,000,000 for immediate relief. This law also authorized and directed the Secretary of the Interior "at the earliest practicable date to submit to the Congress his recommendations for necessary legislation for a long-range program dealing with the problems of the Navajo and Hopi Indians."

The Third Supplemental Appropriation Act of December 23, 1947 included, under the above authorization, $500,000 for welfare of Indians, which was used to meet the relief needs of the Navajos and Hopis during the balance of that fiscal year, and to institute an off-reservation employment program. As the money was not actually available before the end of January 1948, the American Red Cross dispensed emergency assistance to a total value of $73,441 on a disaster basis, while the Navajo Tribal Council made available $28,246.50 of Tribal funds, and a large number of religious, civic, and private organizations sent truckloads of commodities, in addition to those supplied by Federal agencies, to meet the emergency on the Reservation. These contributions included 271 tons of food and 202.5 tons of clothing distributed during the months of December 1947, and January 1948.

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[5] "The Navajo Welfare Situation," published in mimeo by Navajo Agency, October 13, 1947.

[6] "The Navajo Welfare Situation," published in mimeo by Navajo Agency, October 13, 1947.

A special staff of Indian Service Social Workers, including the Bureau Supervisor of Social Work and 5 Indian Agency Social Workers, were detailed to the Navajo Reservation for two and one-half months in January 1948, to join the two Navajo Agency Social Workers in administering the emergency program. At this time, case histories and records were established with respect to each family receiving direct assistance, and these became the basis of the well regulated welfare program conducted by the Navajo Agency after that date. The objective was to establish case records that would contain all necessary information required to establish eligibility for public assistance under the various State programs, or for general assistance under the Bureau program.

In March 1948, the Secretary of the Interior submitted to the 80th Congress *The Navajo*, a comprehensive report setting forth in detail a long-range program for Navajo rehabilitation to be carried out over a 10-year period at a capital cost of $90,000,000.

On May 10, 1948, the Congress appropriated, again under the authority of Public Law 390, $1,000,000 for an emergency work relief program for the Navajos and Hopis. Work under this appropriation was started at once on such projects as the construction of roads, soil conservation structures, irrigation works, and school and hospital repair.

An off-reservation employment program was initiated by the Indian Service which resulted in employment for more than 13,000 Navajos, during the summer and fall of 1948, in railroad, agricultural, mining, and other types of work. While practically all of the off-reservation work was temporary, the wages were very helpful to the workers and their families. The Indian Service continued its efforts to help Navajos resettle away from the Reservation on a permanent basis, but progress was slow because of very difficult problems of housing, education, and health, as well as the reluctance of most Navajos to leave their homeland for more than a few months.

These various efforts did much to improve the economic situation in 1948, and real progress was being made in reaching the needy families when severe blizzards in January and February 1949, caused a serious emergency on the Navajo and Hopi Reservations. This circumstance again drew nation-wide attention to the desperate plight of the Navajos. It was estimated that more than 1,000 families in the western part of the Reservation were affected by the storms, resulting in an acute need for emergency relief. Heavy losses of sheep, a keystone of Navajo economy at the time, were reported. Many roads were closed, some communities were isolated, and serious health hazards developed in some areas. "Operation Snowbound" was put into effect, and every possible measure was taken by the Bureau and the Department, in cooperation with the Armed Forces, other Government agencies and the Red Cross, to relieve suffering and hardship. The President authorized the Secretary of the Interior to spend any funds appropriated to the Department to combat the results of the blizzards.

On February 27, 1949, the Secretary of the Interior designated the American Red Cross as the agency to handle supplementary relief on the Navajo and Hopi Reservations, and requested other private and public welfare and charitable organizations interested in helping these tribes to coordinate their activities through the national offices of the Red Cross which had had extensive experience in this particular area. The American Red Cross allocated an additional sum of $187,000 to the Reservation welfare effort, and this amount, in conjunction with Federal funds, brought the total to $961,826 for welfare purposes.

In addition to cash payments, the Branch of Welfare distributed 674 sacks of potatoes, 8,140 cases of dried milk, 378 cases of apples, and 579 cases of canned pears and orders were placed for an additional 3,000 carloads of powdered eggs. The American Red Cross provided 95,000 pounds of food, and contributions of food and clothing continued to be received from private donors.

On April 28-29, 1949, a conference was held with representatives of the States of Arizona and New Mexico, in the New Mexico capital, and the plan worked out at this time for the acceptance of Navajo Indians for public assistance became known as the "Santa Fe Agreement." The agreement provided that the States, through their departments of public welfare, would accept applications for public assistance from Indians on a par with other citizens for payment of determined residual need (after deduction of all other resources available to the applicant), up to 10% of the total cost incurred by the Federal and State Governments in aid to needy Indians eligible for assistance under the categories set forth in Title I, IV, and X of the Social Security Act.

For fiscal year 1950, a Federal appropriation totalling $1,173,000 was made available to meet (1) the needs of general assistance cases, (2) the needs of public assistance cases not yet processed for State payments and (3) to subsidize the States to the extent authorized by the "Santa Fe Agreement" for extension of the categorical aid benefits of the Social Security program to Reservation Indians.[7]

The tables summarize and recapitulate the welfare programs of the decade of the 1940's.

The events of the 1940's culminated in the enactment, by Congress of Public Law 474-81st Congress, better known as the Navajo-Hopi Long Range Rehabilitation Act, signed by President Truman on April 19, 1950.

Section 9 of this Act laid the foundation for extension of Social Security benefits to members of the Navajo and Hopi Tribes, with the provision that:

"Beginning with the quarter commencing July 1, 1950, the Secretary of the Treasury shall pay quarterly to each State (from sums made available for making payments to the States under sections 3 (a), 403 (a), and 1003 (a) of the Social Security Act) an amount, in addition to the amounts prescribed to be paid to such State under such sections, equal to 80 per centum of the total amounts of contributions by the State toward expenditures during the preceding quarters by the State, under the State plans approved under the Social Security Act for old age assistance, aid to dependent children, and aid to the needy blind, to Navajo and Hopi Indians residing within the boundaries of the State on reservations or on allotted or trust lands, with respect to whom payments are made to the State by the United States under sections 3 (a), 403 (a), 100 respectively, of the Social Security Act, not counting so much of such expenditure to any individual for any month as exceeds the limitations prescribed in such sections."

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[7] The excellent history of the development of social welfare services for the Navajo was prepared by Miss L. A. Hastings, Assistant Chief, Branch of Welfare, Bureau of Indian Affairs, Washington, D. C. The Editor is also indebted to Mrs. Ruby T. McDermott, Supervisor of Social Work at Navajo Agency during the period 1943-50, whose thoughtful and detailed "Memorandum for the Record," dated March 16, 1950, in conjunction with personal recollections form the foundation for part of the foregoing account of the growth of the Navajo Welfare Program during the stormy decade of the 1940's.

The Navajo Welfare Program

Relief Expenditures July, 1941 - March, 1950

YEAR	FEDERAL FUNDS	TRIBAL FUNDS	RED CROSS FUNDS	TOTAL FUNDS
1941	$ 36,685*	$ 0	$ 0	$ 36,685
1942	55,672*	0	0	55,672
1943	41,500*	0	0	41,500
1944	35,300*	0	0	35,300
1945	45,000	0	0	45,000
1946	50,000	0	0	50,000
1947	50,000	0	0	50,000
1948	510,075	28,246	73,341	611,662
1949	774,826	0	187,000	961,826
1950	1,173,000	0	0	1,173,000
Total	$2,772,058	$28,246	$260,341	$3,060,645

*These funds were used for the purchase of commodities for distribution to needy Navajos.

Households, Persons and Average Grants

June, 1941 - March, 1950

Year	Households	Persons	Average Monthly Household Grant	Average Monthly Grant Per Person
1941	1,244	5,558	$ 4.73	$ 1.05
1942	1,036	4,192	4.48	1.11
1943	607	2,358	5.70	1.47
1944	121	491	24.38	5.99
1945	234	756	16.06	4.95
1946	290	870	14.34	4.79
1947	335	935	14.35	5.15
1948*	1,844	5,803	37.67	11.37
1949	2,095	5,004	38.25	16.00
1950	2,401	5,026	40.37	19.28

*In 1948, the regular relief roll at Navajo Agency included only 491 households comprising 1,319 persons. The heavy increase resulted when the American Red Cross entered the program with an allocation of $73,341.

The Decade of the 1950's. The Navajo-Hopi Rehabilitation Act took cognizance of the urgent need for a welfare program to serve the Reservation people involved, and made ample provision for its implementation, including Federal subsidies to the States, as a basis for extension of the Social Security program, by the States, to serve the aged, the blind, the disabled and the dependent children. However, in the late 1940's, a movement had gained momentum in the Congress in support of the proposition that the Bureau of Indian Affairs should establish well defined goals designed to decrease special federal services to Indians through transfer of Bureau functions to other Federal agencies, to the States and to the tribes themselves. The policy with reference to welfare services provided by the Bureau of Indian Affairs was expressed as one aimed at the provision of "needed social services and assistance on Indian Reservations, not obtainable from other agencies; to work toward extension of all local, state and Federal welfare programs to include Indians; and to assist Indians to develop their own social services."

At an Agency level, the policy was expressed as one involving the administration of a General Assistance program designed to meet urgent relief needs with reference to cases which could not secure necessary aid from Tribal, State or other Federal programs. At the same time, the Agency Welfare staff was charged with responsibility for the development of cooperative relationships with the Tribe and with non-Bureau social welfare agencies, with the placement of emphasis on the extension of social services to Indians from the regular, established welfare agencies serving all other citizens. This policy has remained consistently in force throughout the decade of the 1950's.

The turmoil of the 1940's and the economic crisis that characterized the latter portion of that decade resulted in recognition of the urgent need for welfare assistance on the Reservation, and programs were designed and implemented, meeting that need to an unprecedented extent during the ensuing decade of th 1950's. The table entitled *The Reservation Welfare Program* summarizes the growth of this service, administered by the federal and state agencies or by the Tribe, since 1950. So far as subsistence and emergent economic needs are concerned, these efforts have gone far in the elimination of suffering on the part of the aged and other unemployable or unemployed segments of the Navajo population. The expanding boarding school program, at the same time, has provided food and shelter to meet the immediate needs of many children for whom there might otherwise not be adequate provision. In fact, if the contributions of the Federal Government in the form of free medical care and of food and shelter provided for the Navajo children in the Bureau Boarding Schools were construed as "welfare," the value of the Reservation Welfare program would be many times the $41.92 shown in the table for the decade of the 1950's.

It is estimated by Navajo Agency that about 30% of the Navajo population, potentially eligible for categorical aid under the Social Security program, fails to establish its eligibility to take advantage of this potential income, while an even larger number of Reservation residents fail to take full advantage of Social

Security benefits for which they are eligible on the basis of wage employment or as self-employed persons. Partly, failure to establish maximum eligibility under the Social Security program is due to the fact that many Tribal members are uneducated and for this and other reasons they lack necessary information about the program; partly, it is due to the lack of sufficient personnel in the employ of the State Department of Public Welfare, the Bureau of Indian Affairs or the Tribe, necessary to conduct an aggressive campaign designed to find and assist all eligible cases.

The past ten year period has been one of continued and accelerating social and economic revolution within the burgeoning population of the Reservation area. The growth of the wage economy generally, hinging in part on the spread of education, the construction of schools, hospitals and clinics; and in part on the expansion of Tribal programs reflecting the increased amount of Tribal revenue from mineral development since 1956, have pushed agriculture and stockraising into the background in terms of the proportionate contribution made by these pursuits to the livelihood of the Reservation people. With the growth of the wage economy in the Navajo area, there has been a trend away from rural living and toward urbanization; a trend that has been encouraged generally by the Tribal Government which has invested a significant amount of Tribal funds in community planning and utilities development in recent years. The Tribe is looking hopefully to a better future for its members, involving the creation of industrial payrolls within the Reservation area capable of providing a livelihood to a much larger segment of the population than can be supported presently by available resources.

This trend has been reflected in an ever increasing demand for social welfare services, transcending in scope those which relate strictly to economic need. The problems of adjustment faced by the Navajo people are enormous as would be expected in a group removed by less than a generation from a society based totally on a traditional tribal cultural system, and one which began, less than twenty years ago, a wide scale shift from subsistence agriculture and stockraising to wage-work as an adaptation to new economic requirements. Old habits reflecting rural life must be replaced with new habits adapted to urban living; old values associated with traditional culture must undergo adaptive change or be replaced entirely by new values if a stable society is to develop along urban lines. Broken homes, abandonment of children, problem drinking and anti-social behaviour generally, are aspects of this changing cultural pattern. The boarding schools, essential to attainment of universal education for the school-age population under the predominantly rural conditions of life on the Reservation, must cope with all of the problems generally attendant upon institutional living for adolescents, plus the added problems involved in the adjustment of children with a vastly different cultural background, reared in rural homes, who find themselves living side by side in school dormitories far from their parents and relatives.

Within the Reservation, much more than economic assistance for unemployable segments of the population will be required in the next decade if the problems of transition are to be minimized. The expanding need in this respect is reflected in the fact that demand for social services was 32.5% greater during the first half of fiscal year 1960 than it was in a comparable period during the preceding year. In fact, demands placed by the Tribal courts on the Branch of Welfare at Navajo Agency for social investigations relating to divorce, child care and custody, alimony and juvenile delinquency reached such proportions by the end of calendar year 1960 that, despite the importance of such investigations, it was necessary for the Agency to advise Tribal officials that no further referrals could be accepted from the Reservation courts until such time as the existing backlog of social Welfare cases could be processed. It was recommended that the Tribal Council budget funds in fiscal year 1962 to meet the cost of employing necessary Court Investigators.

In the off-Reservation boarding schools serving Navajo children there is a growing need for the institution of a program designed to cope with the problems of maladjusted children.

Consideration of the evolution and character of the welfare problem on the Navajo Reservation leads to the conclusion that (1) a joint study, involving Tribal, State and Federal representatives, is necessary to define and measure the need for expanded social services; (2) an integrated program involving the Tribal, the State and the Federal Governments, capable of meeting the essential requirements determined by the joint study, is necessary, and (3) an evaluation of the need for psychiatric services at the off-Reservation boarding schools with a recommended program for solution of the growing problems of social maladjustment among Navajo children enrolled in the education program should be carried out at the earliest possible time. In addition, the problems of providing custodial care for feeble-minded, spastic and epileptic Navajo children, vocational training for the handicapped, and rehabilitation of juvenile delinquents, must be faced realistically in the decade of the 1960's.

NAVAJO AGENCY BRANCH OF WELFARE STATISTICAL REPORT - FY 1960

Month	GENERAL ASSISTANCE		CHILD WELFARE				SERVICE CASES ONLY
			Foster Care		Handicapped		
	No.	Amount	No.	Amount	No.	Amount	
July 1959	353	$ 18,920.00	65	$ 3,323.46	15	$ 1,522.50	467
August 1959	366	19,273.00	74	3,161.84	15	1,522.50	485
September 1959	357	18,718.00	62	2,331.15	53	9,173.93	442
October 1959	350	19,435.00	49	2,283.35	56	9,774.56	462
November 1959	350	18,675.00	46	2,155.98	57	10,230.91	498
December 1959	366	19,765.00	48	2,276.90	57	11,188.62	508
January 1960	364	19,463.00	52	2,249.54	56	10,094.24	527
February 1960	374	20,159.00	51	2,322.77	56	10,094.24	545
March 1960	387	21,116.00	50	2,298.73	58	10,344.24	563
April 1960	401	22,051.00	55	2,531.27	59	10,572.38	601
May 1960	367	19,693.00	63	2,802.32	58	10,390.35	643
June 1960	330	17,538.00	77	3,386.76	22	2,714.00	668
TOTAL	4365	$ 234,806.00	692	$ 31,124.07	562	$ 97,622.47	6409

NAVAJO AGENCY BRANCH OF WELFARE STATISTICAL REPORT - FY 1959

Month	General Assistance		CHILD WELFARE				Service Cases Only
			Foster Care		Handicapped		
	No.	Amount	No.	Amount	No.	Amount	
July 1958	331	$ 15,015.00	59	$ 2,851.81	10	$ 870.25	394
August 1958	332	15,879.00	66	2,916.93	10	873.75	465
September 1958	327	15,147.00	54	2,353.12	47	7,343.09	465
October 1958	337	15,725.00	51	2,339.27	49	7,508.98	426
November 1958	341	16,119.00	54	2,520.00	51	8,025.79	434
December 1958	347	16,992.00	51	2,506.81	50	7,943.00	434
January 1959	348	17,009.00	60	2,700.92	50	7,943.00	455
February 1959	358	17,830.00	55	2,742.75	49	7,765.00	465
March 1959	367	20,029.00	64	3,317.67	50	7,836.25	439
April 1959	390	21,426.00	59	3,096.48	50	7,836.25	440
May 1959	376	19,999.00	71	3,568.85	54	8,357.08	471
June 1959	357	19,209.00	69	3,182.75	17	1,727.75	443
TOTAL	4211	$ 210,379.00	713	$ 34,097.36	487	$ 74,030.19	5331

THE RESERVATION WELFARE PROGRAM
1951 - 1960

Fiscal	Social Security-Categorical Aid(1)			Navajo Agency		Navajo Tribe(4)		Total Welfare
Year	New Mexico	Arizona	Utah(3)	Gen'l Assistance	Child Welfare	All Types	% Total	Benefits
1951	$296,638	$ ----	$52,000	$184,700	$20,010	$ 65,600	10.6	$ 618,948
1952	479,217	988,057	71,000	163,000	25,520	24,000	1.4	1,750,794
1953	597,361	1,259,007	90,000	158,000	67,640	24,000	1.1	2,196,008
1954	719,407	1,289,683	81,000	156,750	68,800	95,000	3.9	2,410,640
1955	767,476	1,307,709	76,000	151,260	81,338	553,841	18.8	2,937,624
1956	693,290	1,288,693	85,000	194,613	84,790	646,844	21.6	2,993,230
1957	881,626	1,502,578	100,000	199,615	88,472	765,750	21.6	3,538,041
1958	1,055,373	1,500,000(2)	100,000	225,760	173,293	2,298,401	42.9	5,352,827
1959	1,160,846	1,732,838	100,000	210,379	108,127	5,298,976	61.5	8,611,166
1960	1,204,009	2,053,049	100,000	234,806	128,746	7,820,316	67.8	11,540,926
Total	$7,855,243	$12,921,614	$855,000	$1,878,883	$846,736	$17,592,728	41.9	$41,950,204
% Total	18.72	30.80	2.04	4.43	2.02	41.92		100

(1) Although administered through the State Departments of Public Welfare, the funds involved are more than 80% federal money.
(2) Estimated; amount not available for 1958.
(3) Estimated on the basis of available information.
(4) Amounts provided with relation to the Tribe include burial funds, relief items, tribal clothing program, Public Works, Irrigation O&M payments from tribal funds, eyeglass and prosthetic programs, etc.

TOTAL PUBLIC ASSISTANCE EXPENDITURES FOR NAVAJO INDIANS
IN NEW MEXICO, ANNUALLY (1951-60)(1)

Fiscal Year	Total (2)	AMOUNT OF PUBLIC ASSISTANCE BY PROGRAM			
		Old Age Assistance	Aid to Dependent Children	Aid to Needy Blind	Aid to the Disabled
1951	$ 296,638.50	$ 139,492.00	$ 137,097.00	$ 19,210.00	$ 839.50
1952	479,217.50	221,294.00	215,662.50	26,334.00	15,927.00
1953	597,361.50	261,917.00	276,325.00	28,870.50	30,249.00
1954	719,407.50	295,007.00	361,048.00	31,162.50	32,190.00
1955	767,476.50	298,484.00	412,985.00	28,535.00	27,472.50
1956	693,290.50	240,219.50	400,950.00	25,414.50	26,706.50
1957	881,626.00	323,215.00	485,816.50	30,892.50	41,702.00
1958	1,055,373.50	371,062.50	605,296.00	27,804.50	51,210.50
1959	1,160,846.00	419,512.00	647,467.00	28,106.00	65,761.00
1960	1,204,009.00	468,342.00	634,056.00	32,827.00	68,784.00
TOTAL	$7,855,246.50	$3,038,545.00	$4,176,703.00	$279,156.50	$360,842.00

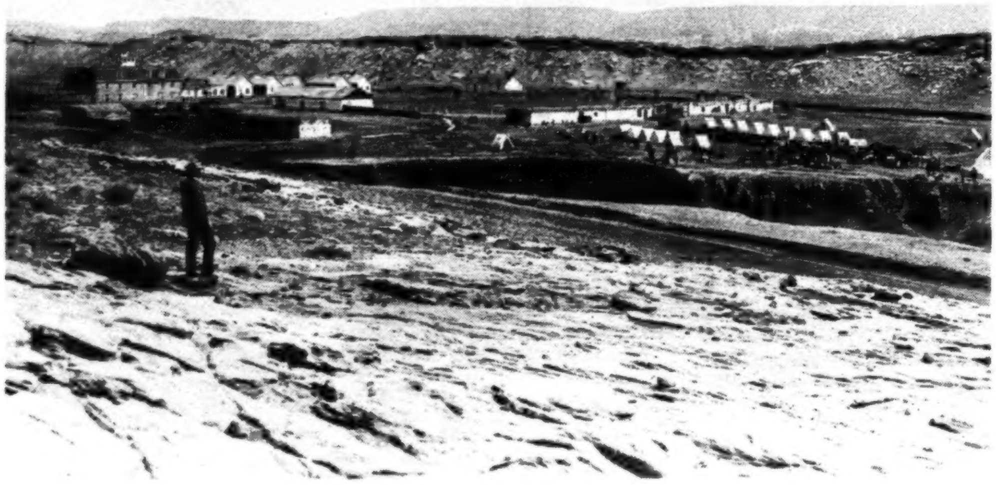
(1) Provided by New Mexico Department of Public Welfare.

(2) Not adjusted for cancellations.

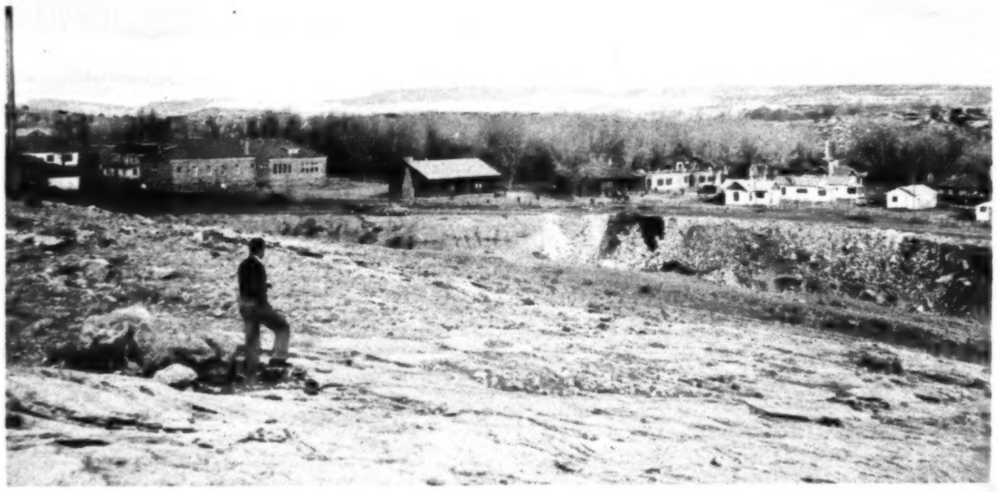
NAVAJO PUBLIC ASSISTANCE BY NUMBER OF RECIPIENTS,
AMOUNT OF GRANT BY PROGRAM FOR MONTH OF JUNE - 1951-58[(1)] UTAH

	TOTAL ALL CATEGORIES			OLD AGE ASSISTANCE			AID TO DEPENDENT CHILDREN			AID TO THE BLIND		
Year	No. Cases	Amount	Average Grant	No. Cases	Amount	Average Grant	No. Cases	Amount	Average Grant	No. Cases	Amount	Average Grant
1951	73	$4,369.65	$51.22	29	$1,078.49	$37.19	39	$3,107.05	$ 79.66	5	$184.11	$36.82
1952	77	5,944.61	63.32	28	1,309.54	46.77	43	4,388.11	102.05	6	246.96	41.16
1953	89	7,517.55	68.06	30	1,501.89	50.06	53	5,740.66	108.31	6	275.00	45.83
1954	93	6,752.51	65.37	32	1,480.58	46.27	54	4,851.93	89.85	7	420.00	60.00
1955	97	6,309.04	59.38	33	1,645.08	49.85	55	4,195.96	76.29	9	468.00	52.00
1956	103	7,099.19	68.92	36	1,818.54	50.52	56	4,744.40	84.72	11	536.25	48.75
1957	104	8,319.41	79.79	42	2,250.50	53.58	51	5,501.36	107.87	11	567.55	51.60
1958	110	9,067.17	82.43	48	2,446.42	50.97	53	6,125.25	115.57	9	495.50	55.06

(1) Provided by The Utah State Department of Public Welfare. No report available for 1959-60.



Fort Defiance in 1884. (Photo by Ben Wittick.)



Fort Defiance in 1940. The picture was taken from the same location as those from 1884. Note the ridge of rock at the level of the head of the man in the foreground.

ARIZONA PUBLIC ASSISTANCE BY NUMBER OF PAYMENTS, AMOUNT OF GRANT BY CATEGORY
FOR THE PAST TEN FISCAL YEARS -- STATEWIDE (1)

	Total			Old Age Assistance			Aid to Dependent Children			Aid to the Blind		
	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant
1951	229,165	$13,617,708	$59.42	168,776	$8,759,734	$51.90	49,915	$4,241,237	$84.97	10,474	$161,737	$58.88
1952	219,705	12,117,396	55.15	166,711	8,367,824	50.19	44,097	3,263,964	74.01	8,897	485,608	54.58
1953	217,199	13,062,444	60.14	165,668	8,940,197	53.96	43,241	3,635,452	84.07	8,290	486,795	58.72
1954	221,030	14,166,159	54.09	165,101	9,315,760	56.42	47,520	4,319,704	90.90	8,409	530,695	63.11
1955	227,857	14,800,120	64.95	165,420	9,263,691	56.00	53,773	4,986,458	92.73	8,664	549,971	63.48
1956	233,199	15,142,669	64.93	167,907	9,364,348	55.77	56,192	5,192,352	92.40	9,100	585,969	64.39
1957[2]	239,350	16,104,235	67.30	169,182	9,412,467	55.64	60,597	6,072,279	100.21	9,571	619,489	64.73
1958	243,984	16,801,229	68.86	169,774	9,381,341	55.26	64,461	6,791,920	100.68	9,749	627,968	64.41
1959	222,961	18,060,118	81.00	168,117	9,389,623	55.85	75,057	8,025,330	106.92	9,787	645,165	65.92
1960	262,348	21,177,725	80.72	167,588	10,350,684	61.76	84,729	10,102,563	119.23	10,031	724,478	72.22

(1) Prepared by Arizona State Department of Public Welfare. (2) May and June estimated.

NAVAJO-HOPI PUBLIC ASSISTANCE BY NUMBER OF PAYMENTS, AMOUNT OF GRANT BY PROGRAM AND F.Y.(1)
ARIZONA

	Total			Old Age Assistance			Aid to Dependent Children			Aid to the Blind		
	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant	No. of Payments	Amount	Average Grant
1951 (2)												
1952	17,804	$ 988,057	$55.50	10,658	$483,241	$45.34	5,967	$453,658	$75.91	1,170	$51,158	$43.72
1953	20,697	1,259,007	60.83	12,024	596,736	49.63	7,485	603,346	80.61	1,188	58,925	49.60
1954	21,193	1,289,683	60.85	11,954	585,603	48.99	7,917	635,183	80.23	1,322	68,897	52.12
1955	20,964	1,307,709	62.38	11,564	579,350	50.10	8,052	653,182	81.12	1,348	71,177	52.80
1956	20,730	1,288,693	62.17	11,014	549,846	49.92	8,354	668,364	80.01	1,362	70,483	51.75
1957[3]	23,020	1,502,578	65.18	11,297	562,817	49.96	10,303	864,455	83.69	1,420	75,306	52.70
1958 (2)												
1959	23,602	1,732,838	73.42	10,663	563,008	52.80	11,641	1,096,730	94.21	1,298	73,100	56.32
1960	25,903	2,053,049	79.26	11,535	669,440	58.04	12,253	1,298,911	106.01	1,305	84,698	64.90

(1) Provided by the Arizona State Department of Public Welfare.
(2) Data not available for Navajo-Hopi for this fiscal year.
(3) May and June estimated. Aid to Dependent Children grants were increased by law.

PUBLIC ASSISTANCE FOR NAVAJOS IN NEW MEXICO: RECIPIENTS, AMOUNT
OF ASSISTANCE AND AVERAGE GRANTS, SHOWING TRENDS
AS OF JUNE, ANNUALLY (1)

Month	Year	Recipients		Amount of Assistance	Average Grant Per Case
		Cases	Persons		
			ALL PROGRAMS		
July	1950	418	778	$11,536.50	$27.60
June	1951	963	2,065	35,669.00	37.04
	1952	1,120	2,348	47,381.50	42.30
	1953	1,184	2,452	59,352.00 (b)	50.13
	1954	1,316	2,843	68,834.50 (b)	52.31
	1955	1,386	2.965	57,874.50 (b)	(c) 41.76
	1956	1,182	2,529	70,042.50	59.26
	1957	1,204	2,349	76,130.00	63.23
	1958	1,391	3,004	90,277.00	64.90
	1959	1,342	2,810	97,809.00	72.88
	1960	1,434	3,251	114,389.00	79.77
			OLD AGE ASSISTANCE		
July	1950 (a)	280	331	6,153.50	21.98
June	1951	516	626	14,762.50	28.61
	1952	552	671	21,118.50	38.26
	1953	571	647	23,469.50	41.10
	1954	612	693	25,628.50	41.87
	1955	636	653	16,979.00	26.70
	1956	525	552	23,307.00	44.39
	1957	572	612	28,000.00	48.95
	1958	617	676	30,799.50	49.92
	1959	618	674	35,620.00	57.64
	1960	619	686	40,099.00	64.63
			AID TO DEPENDENT CHILDREN		
July	1950 (a)	108	410	4,704.50	43.56
June	1951	363	1,324	18,419.00	50.74
	1952	439	1,503	21,738.50	49.52
	1953	472	1,626	30,441.50	64.49
	1954	567	1,981	37,896.00	66.84
	1955	617	2,151	37,208.50	60.31
	1956	530	1,830	41,702.00	78.68
	1957	499	1,590	41,750.00	83.68
	1958	633	2,171	52,490.50	82.92
	1959	586	1,977	53,856.00	91.90
	1960	662	2,391	65,557.00	99.03
			AID TO NEEDY BLIND		
	1958	43	51	2,163.50	50.31
	1959	43	52	2,519.00	58.58
	1960	51	57	2,769.00	54.29
			AID TO THE DISABLED		
	1958	98	106	4,823.50	49.22
	1959	95	107	5,814.00	61.20
	1960	102	117	5,964.00	58.47

(1) Provided by New Mexico State Department of Public Welfare.
(a) Includes amounts deposited to the Medical Pooled Fund.
(b) Navajo and Pueblo Indians were not identified separately prior to this date.
(c) Decrease in average grant result for overall decrease in percent of need met.
Figures for June 1957 estimated.

The Reservation Community. Some Reservation communities developed at an early date around forts and outposts maintained by the United States Army (e.g. Fort Defiance and Fort Wingate) - a process which occurred elsewhere in the United States. Later, following the withdrawal of troops and the establishment of government agencies, schools and hospitals, employment and trade opportunities thus provided led to the growth of communities around these facilities, in turn. Generally, developments of this type were unregulated and haphazard, with respect to the Indian community, involving the construction of shacks and other temporary housing without necessary sanitation facilities, and often without adequate sources of domestic water. Reservation development over the past decade has supported expansion of many such communities and has drawn the attention of the Tribal government as well as that of the Public Health Service and the Bureau of Indian Affairs to the need for regulated development, based on sound planning.

Reservation communities are not generally well defined so far as their external boundaries - "city limits", so to speak - are concerned. Rather, they often comprise a nucleus of dense population which gradually diminishes in density to merge into the rural pattern so common in the Reservation area. Largely, those persons who are included within a community are those who are employed there; those whose children attend school there on a day basis; and those who most frequently trade or congregate there for various purposes.

In conjunction with other efforts toward the regulation of community growth, the Navajo Tribe and the Public Health Service carried out a number of community surveys during the period 1958-59. Some of the information assembled in the course of these studies is interesting and useful as a background against which to understand Reservation problems and programs. The studies conducted[1] indicate that, as a generalization, the population of eight Reservation communities studied (including both Navajo and non-Navajo components) exhibits the following characteristics: 7.2% are infants under one year of age; 20% are aged 1 to 5 years; 33.3% are aged 6 to 18 years; and 39.5% are aged 19 years or more. The average number of persons per house in the communities surveyed is 6.1; 5.1% of the homes are hogans while 31.4% are frame (often shacks); 84.3% of the homes range from 200 or less to 400 square feet of space; 79.1%

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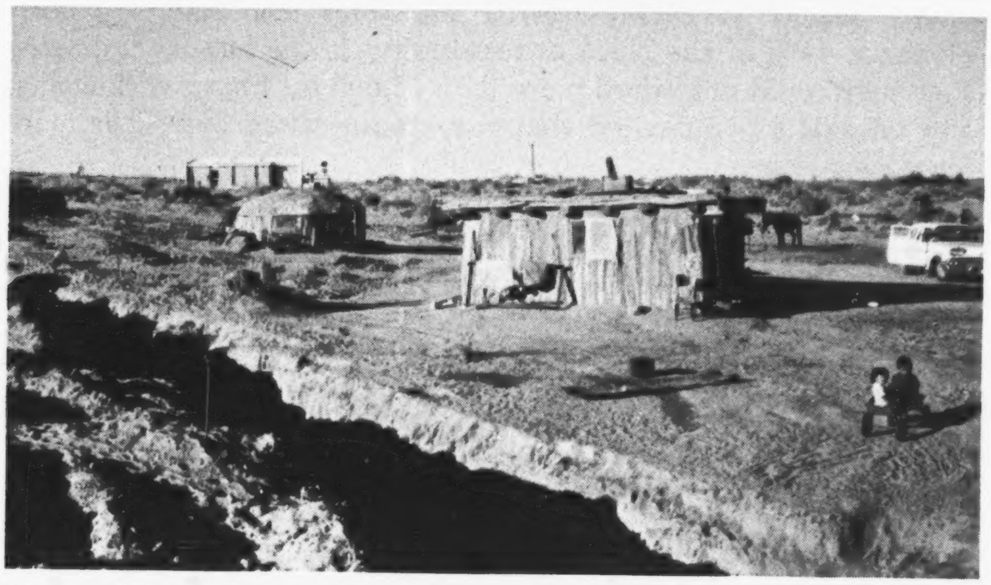
[1] Nearly all of the information relating to Fort Defiance was provided by James Bosch, employed by the Navajo Tribe to conduct a survey of housing in that area as a basis for planned community development.

of the homes contain only one room; and 13.6% of the homes shelter 8 or more persons per room. With reference to Fort Defiance, the total payroll was $1,892,763.38 (in 1959); average income was $5,007; 25.5% of all those families responding to the survey had an annual income between $3,500 - $4,999; only 1.9 families in 10 lacked a radio; 66.3% of the heads of households and 78.9% of the wives (of those responding to the query) never resided outside the Reservation (except at Bureau Boarding Schools); and only 7.9% of the heads of households and 6.5% of the wives (of those responding) evinced willingness or desire to live outside the Reservation. Of all Navajo families responding to the survey, 51.8% had lived all or most of their lives in Fort Defiance, and 80.7% had lived in that community for 10 years or more.



The fringes of Reservation communities frequently include slum areas such as that depicted above. The Navajo Tribe is pushing forward a program of slum clearance and housing improvement on a Reservation wide basis.

The study conducted by the Tribe was designed, among other objectives, to determine how many residents of Reservation communities would avail themselves of the opportunity to buy or rent improved housing in the event that such an opportunity presented itself. The survey conducted at Fort Defiance disclosed the fact that, of those Navajos who responded to the query, 59.2% would buy a better house if such were available; 26.8% would not purchase better housing, and the remainder were undecided. Only 36.6% would rent improved quarters if such were available while 58% were not interested in rental opportunities.

With reference to preferences expressed by Navajo residents of Fort Defiance, relating to size of houses and lots, 25.9% would prefer 6 rooms, and 67.8% would prefer houses of 4 to 6 rooms. Of those Navajos responding to the query at Fort Defiance, 47.6% would prefer a lot embracing 1 to 2 acres, while 32.3% would be satisfied with less than one acre. At Fort Defiance 44% of the Navajos responding to the inquiry indicated that they could not afford more than $1,000 for improved housing, and only 34.8% indicated that they could afford $5,000 or more for a new home.

The tables reproduced on following pages set forth these facts in greater detail. In this connection, the table identified by the title "Population Distribution" includes only the Navajo housing area at Tuba City. Also the column captioned "Shiprock" refers to the farm community west of Shiprock proper. The "Winslow" area includes a small sample of people resident in the Leupp-Dilkon area, north of Winslow.

DISTANCE FROM HOMES TO SOURCES OF (1)
DOMESTIC WATER

DISTANCE	NUMBER OF HOMES	% OF HOMES
In home	1	.07
Less than 100 ft.	11	0.80
100 ft. to ¼ mile	153	10.60
¼ to ½ mile	81	5.70
½ to 1 mile	118	8.20
1 to 1½ miles	135	9.40
1½ to 2 miles	187	13.00
2 to 2½ miles	127	8.80
2½ to 3 miles	228	15.80
3 to 4 miles	148	10.30
Over 4 miles	250	17.40
TOTAL	1439	100.00

(1) USPHS - Albuquerque Area Service Unit Plan - Tables covering the Crownpoint, Tohatchi, Chinle, Ganado-Cornfields, Kayenta, Shiprock and Tuba City Service Units. Mimeo. April 1960.

FORT DEFIANCE COMMUNITY (1)
TOTAL POPULATION AND NUMBER PER HOUSE

AREA	TOTAL KNOWN POP.	TOTAL GUESSED POP. (2)	TOTAL POP.	NUMBER HOUSES INTER-VIEWED	HOUSES NOT INTER-VIEWED	TOTAL HOUSES	PERSONS PER HOUSE
Crystal Road	144	90	234	24	14	38	6.0
Sawmill Road	61	105	166	11	19	30	5.5
Blue Canyon	11	16	27	4	6	10	2.7
Rifle Range Hill	79		79	11		11	7.2
Coal Mine Road	88		88	16		16	5.5
St. Michaels Road	85	5	90	15	1	16	5.6
Teacherage	38	42	80	12	13	25	3.2
Pickett Houses	48	83	131	15	26	41	3.2
Los Alamos Houses	37	40	77	7	10	17	4.0
Quonset Huts	114	12	126	19	2	21	6.0
Law and Order Hill	44	11	55	8	2	10	5.5
Window Rock Highway	31	131	162	4	17	21	7.7
Compound	96	154	250	20	32	52	4.8
Trailer Court	2	8	10	1	4	5	2.0
TOTAL SURVEYED AREAS	878	697	1,575	167	146	313	Nav. 5.6 Anglo 3.3
Other							
BIA Club Building	11		11				
PHS "Bachelor Quarters"(3)	73		73				
TOTAL POPULATION	962	697	1,659				

(1) Information provided by James Bosch.

(2) Obtained by assigning mean number of persons per house in each area to those houses occupied but not interviewed.

(3)

Interne	1
Student Aides	1
Sanatorium Dorm.	4
Sanatorium	10
Practical Nurse Trainee Qtrs.	27
Nurses Qtrs.	30
	73

PERSONS PER ROOM (1)

Persons per Room	Fort Defiance No.	Fort Defiance Per Cent	Shiprock No.	Shiprock Per Cent	Tuba City No.	Tuba City Per Cent	Tonalea No.	Tonalea Per Cent	Dinnebito No.	Dinnebito Per Cent	Klagetoh No.	Klagetoh Per Cent	Chilchinbeto No.	Chilchinbeto Per Cent	Winslow No.	Winslow Per Cent	Total	Per Cent Total
0.0 - 1.0	1	1.2	5	6.1	1	1.2					1	0.9					8	1.5
0.01 - 2.0	29	35.8	7	10.0	13	14.9	6	10.5	2	6.2	12	11.0	8	9.8			77	14.2
2.01 - 3.0	18	22.2	11	15.8	7	8.0	11	19.3	7	21.2	15	13.8	10	12.2	2	8.7	81	14.9
3.01 - 4.0	16	19.8	9	12.8	12	13.8	12	21.1	5	15.1	10	9.2	9	11.0	4	17.4	77	14.2
4.01 - 5.0	5	6.2	11	15.8	14	16.2	5	8.8	4	12.1	19	17.4	18	22.0			76	14.0
5.01 - 6.0	6	7.5	6	8.6	15	17.2	6	10.5	5	15.1	14	12.8	12	14.6	2	8.7	66	12.2
6.01 - 7.0	1	1.2	8	11.4	10	11.5	8	14.0	4	12.1	11	10.0	5	6.1	5	21.7	52	9.6
7.01 - 8.0	1	1.2	1	1.4	6	6.9	2	3.5	2	6.2	8	7.4	7	8.5	4	17.4	31	5.7
8.01 or greater	4	4.9	12	17.1	9	10.3	7	12.3	4	12.1	19	17.4	13	15.8	6	26.1	74	13.6
TOTAL	81	100.0	70	100.0	87	100.0	57	100.0	33	100.0	109	100.0	82	100.0	23	100.0	542	100.0

(1) Information provided by James Bosch.

HOUSING TYPES (1)

TYPE OF HOUSE	Fort Defiance		Shiprock		Tuba City		Tonalea		Dinnebito		Klagetoh		Winslow		Total	Per Cent of Total
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	
Hogan	2	2,1	5	7,1	51	58,5	44	77,2	29	87,8	72	63,1	11	47,8	214	45,1
Frame	67	73,6	33	47,1	24	27,7					18	15,8	7	30,5	149	31,4
Log Cabin	14	15,4	20	28,6	1	1,2					21	18,4	4	17,4	60	12,6
Masonry	6	6,7	2	2,9	6	6,9			2	6,1	2	1,8			18	3,8
Tent			1	1,4	2	2,3	5	8,8	2	6,1	1	0,9	1	4,3	12	2,5
Stucco	1	1,1	7	10,0											8	1,7
Field House (2)							8	14,0							8	1,7
Trailer	1	1,1			3	3,4									4	0,8
Adobe			2	2,9											2	0,4

(1) Information provided by James Bosch

(2) A "Field House" is evidently a structure like a summer shelter in which the sides have been filled in with brush or other miscellaneous materials.

ROOMS PER HOUSE (1)

Number Of Rooms Per House	Fort Defiance		Shiprock		Tuba City		Tonalea		Dinnebito Dam		Klagetoh		Chilchinbeto		Winslow		Total	Per Cent Total
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per. Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	
1	27	31,4	44	62,9	74	85,0	57	100,0	33	100,0	96	88,1	81	98,8	21	91,4	433	79,1
2	33	38,4	19	27,1	7	8,0					10	9,2	1	1,2	2	8,6	72	13,2
3	16	18,6	4	5,7	4	4,6					2	1,8					26	4,8
4	5	5,8	3	4,3	1	1,2					1	0,9					10	1,8
5	3	3,5			1	1,2											4	0,7
More than 5	2	2,3															2	0,4
TOTAL	86	100,0	70	100,0	87	100,0	57	100,0	33	100,0	109	100,0	82	100,0	23	100,0	547	100,0
MEAN							1,51											

(1) Information provided by James Bosch.

HOUSE SIZE (1)

Floor Area Square Feet	Fort Defiance		Shiprock		Tuba City		Tonalea		Dinnebito Dam		Klagetoh		Chilchinbeto		Winslow		Total	Per Cent Total
	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent	No.	Per Cent		
0 - 200	16	19,5	18	25,7	15	17,2	41	71,9	31	93,9	25	22,9	73	89,1	5	21,7	224	41,2
201 - 300	20	24,4	18	25,7	38	43,6	14	24,6	2	6,1	51	46,8	7	8,5	11	48,0	161	29,7
301 - 400	19	23,2	14	20,0	21	24,1	2	3,5			10	9,2	2	2,4	5	21,7	73	13,4
401 - 500	9	11,0	7	10,0	4	4,5					11	10,1					31	5,7
501 - 600	4	4,9	6	8,7	2	2,1					5	4,6			2	8,6	19	3,5
601 - 700	4	4,9	3	4,3	1	1,5											8	1,5
701 - 800	4	4,9	1	1,4	1	1,5					5	4,6					11	2,0
801 - 900	3	3,6	2	2,8	3	3,4					1	0,9					9	1,7
901 - 1,000	0	0	0	0	0	0					0	0					0	
1,001 and over	3	3,6	1	1,4	2	2,1					1	0,9					7	1,3
TOTAL	82	100.0	70	100.0	87	100.0	57	100.0	33	100.0	189	100.0	82	100.0	23	100.0	543	100.0

(1) Information provided by James Bosch

POPULATION DISTRIBUTION (1)

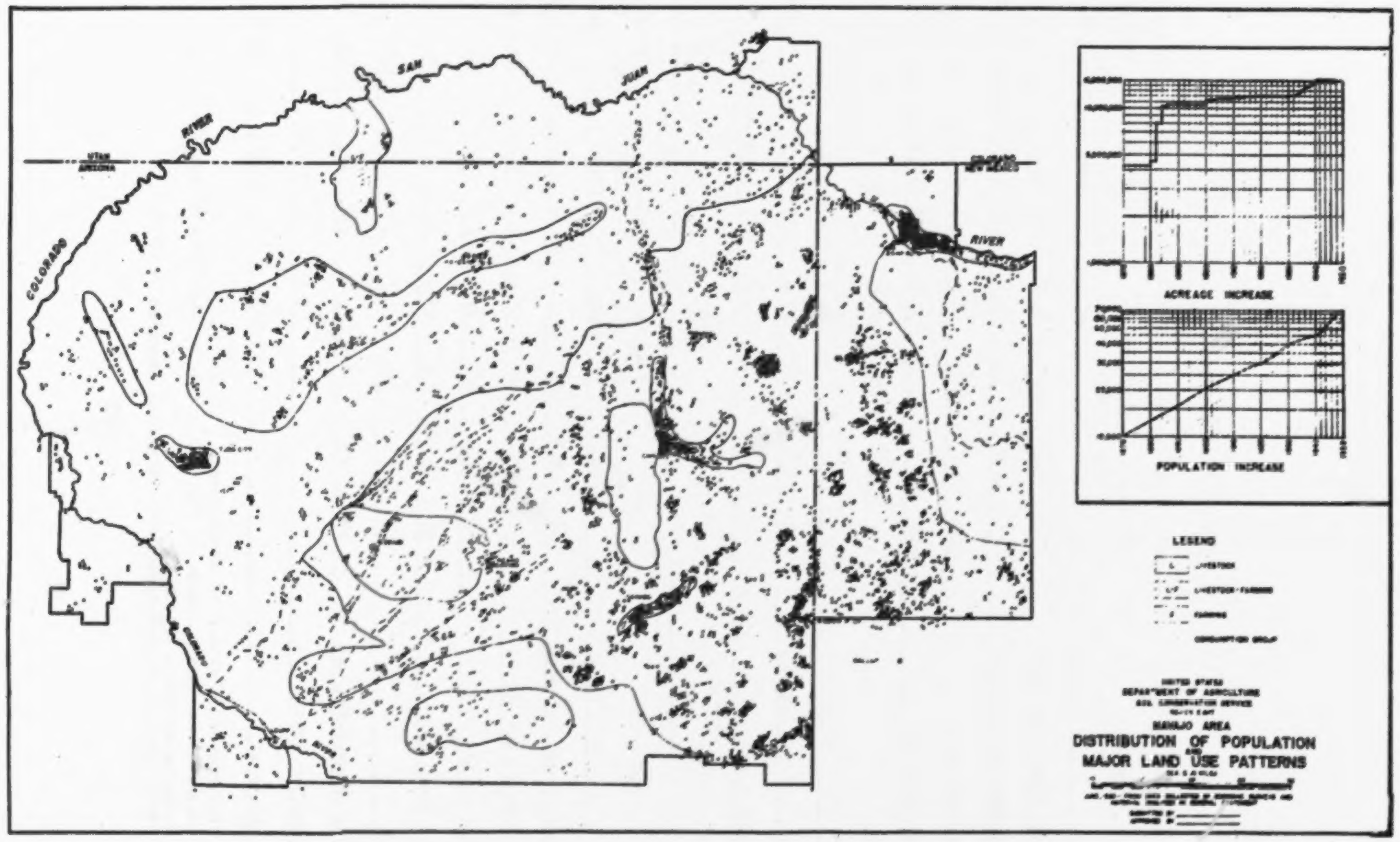
Age Group	Fort Defiance No.	Fort Defiance Per Cent	Shiprock No.	Shiprock Per Cent	Tuba City No.	Tuba City Per Cent	Tonalea No.	Tonalea Per Cent
Infant (Under one yr.)	22	4.7	67	14.9	36	6.5	17	5.8
Pre-School (1-5 incl.)	75	15.9	39	8.7	139	25.3	68	23.4
School (6-18)	185	39.2	170	37.8	188	34.1	91	31.3
Adult (Over 18)	190	40.2	174	38.6	188	34.1	115	39.5
TOTAL	472	100.0	450	100.0	551	100.0	291	100.0
Infant and Pre School (2)	97	20.6	106	23.6	175	31.8	85	29.2
Persons Per House		5.6		6.4		6.3		5.1
Date Surveyed (3)	3/7/59		6/58		5/58			

Age Group	Dinnebito Dam No.	Dinnebito Dam Per Cent	Klagetoh No.	Klagetoh Per Cent	Chilchinbeto No.	Chilchinbeto Per Cent	Winslow No.	Winslow Per Cent
Infant (Under one yr.)	15	8.5	30	4.5	32	6.7	11	5.8
Pre-School (1-5 incl)	37	20.9	144	21.5	118	24.8	38	20.1
School (6-18)	60	33.9	217	32.3	114	24.1	63	33.3
Adult (Over 18)	65	36.7	278	41.6	211	44.4	77	40.8
TOTAL	177	100.0	669	100.0	475	100.0	189	100.0
Infant and Pre-School	52	29.4	174	26.0	150	31.5	49	25.9
Persons Per House		5.4		5.9		5.8		8.0
Date Surveyed			11/57-5/58		4/59		3/59	

(1) Information provided by James Bosch

(2) Regarded as more reliable by PHS than either of the "Infant" or "Pre-School" categories taken separately.

(3) Tuba City and Dinnebito surveys were done sometime in 1958.


COLORADO
RIVER
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NEW MEXICO
RIVER
ACREAGE INCREASE
POPULATION INCREASE
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L LIVESTOCK
L-F LIVESTOCK-FARMING
F FARMING
CONSUMPTION GROUP
UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
NAVAJO AREA
DISTRIBUTION OF POPULATION
AND
MAJOR LAND USE PATTERNS
COMPILED BY
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Navajo Population

Introduction: The most recent national census is that of 1960, and this enumeration showed the Indian population of the United States at 523,591 as of April 1, 1960. Of this total, 73,614 persons, identified as Navajo[1], are estimated as the number residing within the administrative area of Navajo Agency, including Navajo residents of the *Checkerboard* area of allotted lands adjacent to the Reservation in New Mexico.

The Ramah, Canoncito and Alamo groups, and Navajos resident in communities lying adjacent to the Reservation proper can be identified sufficiently well from census data to adjust this total by inclusion of these segments of the tribal population, although they are not considered wholly eligible for Bureau services, nor are they all resident within the Navajo Reservation area proper.

Adjusted to include those elements in reference above, the Navajo tribal population as enumerated by the 1960 census appears to be about 80,364. These are distributed as follows:

New Mexico	32,670
Arizona	45,663
Utah	2,031
Total	80,364

The problem of determining the population of the Navajo Tribe has been a matter of concern to government officials from Spanish colonial times to the present day and, due to a number of factors, it has always remained an estimate rather than an actual count. The reasons for this seeming anomaly are set forth in some detail in the subsection entitled *Historical.* The improvement of communications throughout the Navajo Country in recent years, coupled with the urgent need to develop more accurate census information as a basis for program planning, has resulted in improved techniques and closer estimates, especially since 1928. Nonetheless, the figures developed remain estimates, and this is especially true as it relates to *total tribal population.*

In recent years, the Navajo Tribe has budgeted funds to defray the cost of planning for a Tribal roll and, although positive steps in this direction have not yet been taken, there are strong indications that progress will be made in 1962. The Tribe itself requires a roll as a basis for determining eligibility for tribal services and benefits which, unlike those of Federal agencies, are potentially available to Navajos irrespective of their place of residence. When completed, the tribal roll will represent the first accurate count of *tribal* population in history.

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[1] See "United States Indian Population and Land, 1960-61," publ. October, 1961, U. S. Dept. of the Interior, Bureau of Indian Affairs.

As pointed out by the Commissioner of Indian Affairs in the preface to "United States Indian Population and Land,"[2] differences in definitions and in the timing of requests for population data, have resulted in a wide variety of population estimates in past years. For planning and administrative purposes the Bureau of Indian Affairs and the U. S. Public Health Service utilize estimates reflecting their respective service populations. Since their eligibility standards, the location of their facilities, and other factors vary, the populations with which they are concerned vary. At the same time, the *ethnic* or *tribal* population is distinct from the several service populations including, as it does, all persons of one-fourth or greater degree Navajo blood, irrespective of residence. Members of the *tribal* population are generally eligible for scholarship aid, schoolchildren's clothing and other tribal benefits, and are not excluded because of residence outside the boundaries of the Reservation.

Prior to the 1930's, *tribal* and *service* populations were virtually synonymous because nearly all of the population resided in the Reservation area, and virtually all Navajos were eligible for all types of Federal services. Since the 1930's, with the increasing economic dependence on off-Reservation resources that has characterized the past 20 to 30 years, a distinction has arisen, as noted above, between the *ethnic* or *tribal* population and the *several* service populations. The Bureau now estimates its service population (Navajo) in 1960 at 73,614, while the U. S. Public Health Service placed the "Navajo Service Unit" population in the same year at 81,255, based on the 1960 decennial census.

The actual *tribal* population is still a different figure, and can only be estimated. However, the IBM count based on school census figures collected and kept current by the Navajo Subagencies and Navajo Country school districts; certain clews available from published statistics developed on the basis of the national censuses of 1960 and preceding years; a count of birth certificates registered in the States of New Mexico and Arizona; and other available population data, provide a basis for *estimating* actual *tribal* population today.

It should be kept in mind that the Navajo population, in the decade of the 1950's and in the 1960's is a *fluid* rather than a *static* group. True, there is a minority segment, including many small children and older persons, that resides quite consistently within the Reservation area. Likewise, there is a segment that resides at locations outside the Navajo Country, many in distant States. But, at the same time, it is also true that the great majority of Tribal members move to and from the Reservation area over the course of the year, leaving periodically for seasonal, railroad or other types of temporary employment, and maintaining homes within the Navajo Country. Included within this latter group also are the thousands of Navajo students who spend the school year in various types of off-Reservation schools, and Navajos resident in surrounding communities who retain Reservation homes to which they return on weekends or during vacations. Of these, many retain grazing permits, livestock holdings, farms and other Reservation property.

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[2] Op. cit. supra.

In the course of a national census, enumerators can actually count only those Navajos whom they find at home, or whom they can otherwise identify by Tribal affiliation. The national censuses are not usually concerned with the special problem of determining *tribal* populations as such. Consequently, many persons, temporarily absent from the Navajo Country, are counted with the general population of the States where they are found, and are never included in the "Navajo census." This has been a limiting factor in census enumeration since 1950, so far as the Tribal population is concerned, and it is as difficult to surmount as were the problems engendered by poor roads, widespread illiteracy and lack of communications a generation ago.

The story of past efforts to enumerate or estimate Navajo population is an interesting one; in fact, some background of past efforts is necessary to understand the problem in its present form. To some extent, the historical sketch which follows will meet this need. It is based on a variety of sources, including official government publications. In some instances the source material has been immediately available for direct reference, and such material is identified in footnotes. In other instances, source material derives from official sources as these are quoted in "An Analysis of Sources of Information on the Population of the Navajo," by Dennis F. Johnston. The document in reference is the masterful but unpublished dissertation submitted by Dr. Johnston in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Sociology at the American University, Washington D. C. It is dated June 1961, and it is a rich and reliable source of information pertaining to Navajo population. With the generous consent of its author, wide use has been made of source material and other data quoted by Dr. Johnston, and such material is identified in the text by use of the symbol (DFJ) to avoid endless footnotes.

Historical: The Navajo Country is a vast area of about 24,000 square miles, of which much is wilderness broken by mountains and high plateaus or cut by deep canyons. Prior to 1950, there were few maintained roads; there were only trails and primitive roads in large sectors of the Navajo Reservation area. The pattern of life of the people has long been rural in nature; one in which the population lives scattered about in family clusters, with the greatest density of population lying in the richer highlands where the greatest annual precipitation is received, or in irrigated farm areas bordering the San Juan River. To a large extent, the availability of water is a determining factor with reference to relative population density; in the drier reaches of the Navajo Country, the population is sparse. At best, the homes of the people are difficult to locate, hidden as they are in canyons, woodlands and other regions remote from the all-weather roads.

Nearly three quarters of a century ago, acting Navajo Agent E. H. Plummer described the problem of census taking in the Navajo Country, in a letter[3] dated May 26, 1893 to the Commissioner of Indian Affairs. He stated: "I have the honor to acknowledge the receipt of your letter marked "A" dated May 20th, 1893. In reference to the instructions therein I beg to inform you that it is simply impossible to comply with them.

"This tribe comprises about 20,000 Indians, scattered over some 12,000 or 14,000 square miles of country, living in mountains and secluded places difficult of access and often almost impossible to find unless known to the searcher. Many of them located from one to two hundred miles off the Reservation.

"If every available employee and animal pertaining to the Agency, including school and police were started tomorrow on this work it could not be completed within the time specified.

"I will endeavor to secure an approximate estimate of the population. This was all that was really obtained when the last regular census was made, with all the time and facilities, funds &c at the disposal of those making it."

"Off the Reservation," as used by Agent Plummer would now refer largely to areas incorporated within the Navajo Reservation.

This was the situation in 1893, and to no small extent it remains the situation in many areas of the Navajo Country, even in 1961. As a result, Agents and other administrators relied upon a variety of estimates across the years, of which some of the more noteworthy are reviewed below.

Although Navajo census estimates go far back into the Spanish and Mexican periods, those relating to the second half of the past century are of greatest interest today. Of these, one made by James H. Simpson, in 1855, placed the population at 8,000 to 10,000, based on an estimate by Josiah Gregg in the latter's "Commerce of the Prairies." A few years earlier, in 1849-50, James Calhoun, Indian Agent at Santa Fe, had placed Navajo population at 5,000, but in 1854, D. Merriwether, the Governor and Superintendent of Indian Affairs in New Mexico, placed the number at 8,000. A year later, he revised his estimate upward to "1,500 warriors and 7,500 souls." By 1859, this number had risen to 12,000 to 15,000 (DFJ).

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[3] Navajo Agency Letterbook, 1893.

In 1861, the estimate had shrunk to 9,000, a decrease which was explained by J. K. Graves, Special Indian Affairs Agent in New Mexico, as a result of war and capture — in fact, Mr. Graves pressed for congressional action to halt the slave trade as it involved southwestern Indians (DFJ).

During the period 1863-68, a majority of the Tribe was held in captivity by the American military at Fort Sumner, New Mexico. The population of the Tribe was reported by Brigadier General James H. Carleton[4], on April 24, 1864, at approximately 8,000 persons, although he reflects a higher estimate developed by Col. Carson. The number of Navajos who escaped capture is not known, but is thought to have been significantly large.

In December, 1864, the captive population was placed at 8,354, comprising 1,782 families, as shown in the table[4] given below:

NAVAJO POPULATION AT FT. SUMNER

December 31, 1864[1]

Age Group	No. Males	No. Females	Total	% Total
Infants	134	288	422	5%
5 to 18 years	1,525	1,418	2,943	35
19 to 50 years	2,129	2,187	4,316	52
50 years and over	300	373	673	8
Total	4,088	4,266	8,354	100

[1] "Condition of the Indian Tribes — Report of the Joint Special Committee," GPO, 1867 (p. 264).

In 1870, a document entitled "Statistics Relating to Indian Population, Education and Literacy by Tribes and their Respective Agencies" (ARCIA-1870-Doc. 124) reflected Navajo population at 10,000, of which 7,790 was said to be on the Reservation and 2,000 were described as "roaming with other tribes" (DFJ).

In 1875, the population was estimated officially at 11,768, and this number was increased to 11,868 in 1877. A few years later, in 1880, Agent Alexander G. Irvine placed the Navajo census at 12,000, but Galen Eastman, appointed as Agent in 1881, considered this figure too low, so he raised it arbitrarily to 16,000. In 1883, another new Agent added 1,000 more, raising the estimate to 17,000. In 1884, it was raised to 17,200. In 1885, the first "Navajo roll" was prepared, but it was limited to the then existing Reservation. The roll included 13,003, to which an estimated 8,000 persons resident outside the Reservation were to be added to provide a total figure of about 20,000. In 1886, the "enrolled" population was given as 17,358. In 1888, Agent C. E. Vandever placed the number at 18,000 but, in 1890, the official population estimate published by the Bureau of the Census was 17,604. In the same year, Agent Vandever had scaled his estimate down to between 15,000 and 16,000. However, by 1894 the official estimate was again raised — this time to 20,500. The latter number, rounded off to 20,000, remained in general use until 1910 (DFJ).

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[4] "Condition of the Indian Tribes — Report of the Joint Special Committee" GPO — 1867.

Inaccurate as census estimates may have been during the first 50 years following the establishment of the Navajo Reservation, it is clear that Agents and other observers were aware, even at that early period, of the important fact that the population was increasing rapidly. In 1880, the Acting Agent at Fort Defiance estimated the population at 15,500[5] and this official expressed the opinion that the Tribe was "increasing at the rate of 500 or upward every year."

Again, in the summer of 1881, Agent Bennett stated:[6] "The Navajos are increasing. I issued annuity goods to 11,400 Indians in October 1879, being their last issue under the 10-year Treaty stipulation, and in my estimation then, of those who were left behind to care for their flocks, and such Navajos as never come here who reside westwardly from 150 to 300 miles from this Agency, I placed the total as approximately 15,000 souls, but now believe there are more than 15,000 of them."

Dr. Washington Matthews, an Army Surgeon stationed at Fort Defiance in the 1880's, and a thorough-going early student of Navajo culture, language and religion, commented at some length on the matter of Tribal population in an article published in 1897[7]. Dr. Matthews made the following observations relative to Navajo population:

"*Population*: No exact census of the tribe has ever been taken, and it would not now be an easy task to take one, because the Navajos are scattered so widely and over such a wild and rugged territory. Their low huts, built in tangled cedar-woods or in regions of scattered rocks, are often so obscurely hidden that one may ride through a cluster of a dozen inhabited houses thinking there is not an Indian within 10 miles of him. When the Navajos were held in captivity at Fort Sumner, New Mexico, from 1863 to 1867, they depended for subsistence mostly on rations supplied by the United States, and then these captives, at least, could be accurately counted. There were in 1867, 7,300 in captivity. Owing to desertions on the one hand, and additional surrenders on the other, the numbers varied from time to time.

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[5] Navajo Agency Letterbook — 1880.

[6] Navajo Agency Letterbook — 1881.

[7] Vol. V., Memoirs of the American Folklore Society, publ. 1897 by G. E. Stechert Co., N. Y.

"But while the majority of the tribe were prisoners of war, it is well known that all were not captured during General Carson's invasion in 1863, but that many still roamed at large while their brethren were prisoners. The count of the prisoners, therefore, does not show the strength of the tribe.

"Perhaps the most accurate census ever taken was that of 1869. In November of 1869 a count was made of the tribe, in order to distribute among them 30,000 head of sheep and 2,000 goats. Due notice was given months before, and the tribe was present. The Indians were all put in a large corral, and counted as they went in. A few herders, holding the small herds that they had then bunched on the surrounding hills, were not in the corral. The result of this count showed that there were less than 9,000 Navajos all told making a fair allowance for all who had failed to come in. At that time everything favored getting a full count; rations were issued to them every 4 days; they had but little stock, and, in addition to the issue of the sheep and goats, there were also 2 years' annuities to be given out. The season of the year was favorable, the weather fine, and they were all anxious to get the sheep and goats and annuities.

"In 1890 a count of these Indians was made as a part of the Eleventh Census of the United States. Before the count was begun, the writer was informed by one of the enumerators that the plan to be employed was this: The Navajo country was to be divided into a number of districts, and a special enumerator was to be sent to each district at the same time to visit each hut and take the number of each family. Whether this method was carried out, the report of Eleventh Census does not tell us. But this plan, while probably the best that could be employed at the time with the means allotted, was very imperfect, and admitted of numerous sources of error, of which two may be specified. Many huts might easily be passed unnoticed, for reasons already given, and this would make the enumeration too low. Many families might easily have been counted in more than one district, for the Navajo frequently shifts his abode, and this would make the count too high. The result of this enumeration was to give the Tribe a population of 17,204 for that year. White men, living in the Navajo country at the time, generally considered the estimate excessive. If the count of 1869 be approximately correct, that of 1890 is probably not. It is not reasonable to suppose that by natural increase alone — and no other source of increment is known — the tribe should have nearly doubled in 21 years. It would require birthrates much higher and death-rates much lower than those commonly found in Indian tribes to double the population in that time. The Indian mother is not prolific.

"The Navajos say that during their captivity they had much sickness and diminished in numbers; but nothing has been found in official reports to corroborate such statements. All who have any intimate knowledge of the Navajos agree that they have increased rapidly since they were restored to their ancient homes in 1869. During nearly 15 years that the author has had opportunity to observe them, he has noticed no marked signs of physical degeneration among them. Their general health and their power of resisting disease appeared about as good in 1894 as in 1880. Consumption and scrofula, those greatest enemies of our reservation Indians, have not yet begun to trouble the Navajos. The change from the rude hut to the close stone house, which is rapidly going on among this people, is likely to affect their health in the future, and probably not for the better. Fortunately for them, they have little fancy for stoves, but prefer open fireplaces such as the Pueblos and Mexicans use. In the year 1888, while the writer was absent from New Mexico, they had an epidemic of throat disease, the precise character of which has not been ascertained. They say that about 800 people died that winter. During the winter of 1894-95 they suffered from scarcity of food — an unusual experience for them, and the Government had to assist them. An increased mortality ensued, which undoubtedly would have been much greater had it not been for the prompt action of their agent, Maj. Constant Williams, U. S. A., in securing supplies for them."

Dr. Matthews expressed doubt with regard to the validity of the rate of increase reflected in census estimates between 1869-1890, pointing to the fact that the 17,204 Navajos "enumerated" in 1890 represented a near doubling of the Tribal population in the short span of 21 years. Such a rate of increase, as Dr. Matthews points out, was anomalous and incredible at a period when the population of most Indian Tribal groups was diminishing or, at best, holding steady. However, such a rate of increase may well have characterized the Navajo population, even during the last quarter of the 19th Century, if more recent data can be used as criteria.

After the opening of the 20th Century, there was a gradual improvement in census techniques in the Navajo Country, especially after 1910, as evidenced by the growing convergence of Navajo Agency estimates and official Bureau of the Census figures. Thus, the Navajo population as estimated by the Navajo Agents in 1910 (at 26,624) was 18.6% greater than the Bureau of the Census enumeration for the same year (22,377), but in 1930, the Navajo Agency estimate (40,858) was only 4.6% greater than the official enumeration (39,064) (DFJ).

Dennis Johnston points out that, "After 1928, the figures submitted by the several Navajo Agencies were derived from extensive surveys and enumerations that were carried out in connection with the preparation of up-to-date rolls for each Agency. The first of these surveys was carried out in 1928-29. At this time, individual Navajos were issued disks on which were stamped their census number. The original plan called for the execution of supplementary surveys at three-year intervals, whereby births, deaths and changes in family formation and residence occurring in the interim could be duly recorded on the existing rolls." However, as Mr. Johnston points out, "no complete re-canvassing of the entire Reservation area was ever carried out after the initial survey of 1928-29," (except as the school censuses after 1955 accomplished a similar purpose). Nonetheless, during the period intervening between 1928 and the present, the quality of census estimates, as given by Navajo Agency, was improved. In 1930, for the first time, the Navajo census was carried out by the Bureau of the Census on the Reservation, utilizing employees of that Bureau specially trained in census work (DFJ).

Except as the lack of roads, the widespread illiteracy and the poor communications of a generation ago were limiting factors in the taking of a Navajo census, the enumeration of 1930, as Dennis Johnston observes, may have been more reliable than any conducted before or since that time. In fact, as Johnston points out, this view is supported by (1) the use of a large number of regular census enumerators, (2) the totals returned correspond closely with estimates made by Navajo Agency, (3) nearly all the population involved was in residence within the Navajo Reservation area.

By 1950, far reaching social and economic upheavals had transformed the way of life of many Navajo people. Many had shifted from agriculture and stockraising to wagework, and this segment of the population was heavily dependent upon off-Reservation resources. Wagework encouraged and facilitated the acquisition of automobiles, and improved transportation increased the mobility of an already mobile people. These factors, among others, combined to complicate the problem of census enumeration in the Navajo area. However, as Dennis Johnston points out, the Navajo was one of the tribes selected, in 1950, for special Indian enumeration, using the Indian reservation schedule. As in 1930, the 1950 Indian census was carried out by regular census enumerators, and in those areas containing the reservations chosen for special enumeration, the enumerators were selected to include a high proportion of persons acquainted with the reservation area to which they were assigned. The vast majority of Indians residing in New Mexico and Arizona could be identified by Tribe, and there is little likelihood that many were mis-classified on this basis (DFJ).

The census of 1950 was taken during the first two weeks in April, a fact which was unfortunate from the point of view of maximum coverage, inasmuch as many Navajos were absent from the Reservation area, engaged in seasonal off-Reservation wagework at that time.

The "service" population of the then Bureau Branch of Health was estimated at 62,167, and to this estimate an additional 7,000 was added to represent migratory and seasonal workers known to be absent from the Reservation area at the time of the 1950 census (DFJ). This is an arbitrary number, but in view of the emphasis placed by the Bureau at that time on off-Reservation employment, and in view of the acute economic need of the Navajo people, the estimate was considered reasonable. Many of these absent tribal members were employed in Colorado, Utah, Idaho, California and other states remote from the Navajo Country. The census estimate of 1950, although perhaps not as accurate as that of 1930, was nonetheless useful as a tool for program planning and it is not to be discounted as useless.

The census of 1960, taken as of April 1 of that year, was again carried out by the Bureau of the Census, using special enumerators. However, the amount of time available for enumeration was not as great as it should have been to meet the peculiar requirements of the Reservation area; road and weather conditions were bad in the Reservation area; the recruitment of enumerators was difficult for service in some of the more remote regions of the Navajo Country; and the Census Enumeration Districts did not clearly separate areas lying within the Reservation from those adjacent areas lying outside. In addition, as in 1950, an indeterminate number of Navajos were absent from the Reservation area, employed in various types of seasonal work within and outside of the three states of New Mexico, Arizona and Utah. As a result, the 1960 census does not provide an exhaustive count of the Navajo population, although it is again a useful administrative tool, and the information provided is valuable, in combination with other data, as a basis for estimating the tribal population.

The Question of the Rate of Navajo Population Increase: As pointed out in preceding paragraphs, it has been known for many years that the population of the Navajo Tribe is increasing rapidly. Lack of reliable vital statistics, until recent years, has made it difficult or impossible to determine the actual annual rate of increase, although careful analysis of available population estimates and other data lead Dr. Johnston to postulate the following probable or suggested tentative rates:

1870 to 1900: 1.5% to 2.0% per annum
1900 to 1930: 1.75% to 2.25% per annum
1930 to 1950: 2.4% to 2.8% per annum
1950 to 1960: 2.4% to 3.3% per annum

For the period after 1960, there is ample reason to believe that the birth rate is continuing to spiral upward within the Navajo Tribe. *This premise is supported by the fact that, in 1959, birth certificates were issued to 3,675 Navajo babies (2,124 in Arizona and 1,551 in New Mexico); and in 1960, 4,024 birth certificates were issued to Navajo babies (2,134 in Arizona and 1,880 in New Mexico)*. These certificates have been counted and IBM cards have been cut with reference to them by Dr. L. J. Lull, Pediatric Consultant, USPHS, in Phoenix, Arizona, and it is possible to list each such baby by name and address. Consequently, the 3.3% net annual rate of increase postulated by Dr. Johnston as the probable upper limit in the period 1950-1960 may well prove to be a conservative estimate. This possibility is borne out by the results of research carried out at the Cornell-Manyfarms Clinic, over a five year period, which supports an *average* net annual rate in excess of 4% for the clinic population.

In past editions of the Navajo Yearbook, 2.25% per annum has been utilized as a conservative rate of annual increase, and as a basis for estimating tribal population, using the census estimate of 1950 as a point of departure. On this basis the tribal population in 1961 should be 88, 340.

Using Dr. Johnston's suggested lower (2.4% per annum) and upper (2.8% per annum from 1930 to 1950, and 3.3% per annum from 1950 to 1961) rates of annual population increase, Navajo tribal population, in 1961, would be 81,382 as a minimum and 96,874 as a maximum. Using the 69,167 estimated on the basis of the census of 1950, and a 3.0% annual increase, the number in 1961 would be 95,690. [The 4.0 % increase reported at Manyfarms, if applied to the total Navajo population over the period of the decade of the 1950's, beginning with the 69,167 estimated at the beginning of the 10-year period, would bring tribal population to 106,500 in 1961!]

The Navajo School-Age Population Census: With the increasing emphasis on education that characterized the decade of the 1950's, the number and distribution of Navajo school-age and pre-school children became a matter of vital concern as a basis upon which to plan an expanding school construction program. To meet this need, teachers and other education personnel were assigned the task of assembling and keeping current a school-age population census. Maps were developed for each school area, upon which were plotted all of the hogans and other dwellings of the residents of such areas. The school-age children were counted and identified on the basis of their actual homes. Later, after 1957, *all* members of the families were enumerated and pertinent information regarding them was entered on IBM cards to permit easy and accurate analysis. A census section was established at each of the five Subagencies and census data were routed from the outlying school areas to the Subagencies where they were consolidated and transmitted to the Data Processing Section in the Gallup Area Office. In 1960, a Management Analyst, in the person of Herbert Gross, was retained by Navajo Agency, and numerous refinements were made in the census enumeration and recording processes until Mr. Gross' untimely death in December of the same year.

During an earlier period, and before the introduction of IBM processing, many problems were involved in the manual processing of population data, and although it served its purpose as a basis for education planning, this census material was not sufficiently reliable for general use in estimating tribal or service area population.

After 1958, and especially during the time Mr. Gross was available in 1960, IBM cards were brought up to date, duplicates were ferreted out and removed, and a much improved reporting system was installed

On November 23, 1960, the Management Analyst at Navajo Agency stated, in a memorandum, that "The most recent count of IBM census cards shows the following totals: This represents all the Navajos of whom we have records.

Shiprock	15,107
Tuba City	15,294
Crownpoint	18,943
Chinle	11,401
Fort Defiance	22,371
Total	83,116

"When the corrected family listings are received from the field and recorded, there should be a substantial addition to this total." Mr. Gross hazarded the guess that at least 4,000 would be added.

A count of the IBM cards made on December 7, 1961, showed a population of 91,886. Adjusted for children under one year of age, for which 1961 reports are not yet complete,[8] the total population reflected by the IBM cards, including children under one year of age for whom cards will be prepared as soon as reports are received by the Data Processing Section, reaches 93,377.

Age Distribution in the Navajo Population as a Criterion for Estimating Population Totals: A comparison of official census data from 1910 to and including the national census of 1960, the 1961 IBM count, and the Manyfarms Clinic population at the close of 1959, indicates that the relative proportion of the Navajo population falling within certain reported age groupings has remained highly consistent for a long period of years. Thus, for example, it is noted that the proportion of the population aged 5 to 14 years inclusive has varied only within the narrow range of 1.4% during the period 1910 to 1961. (See Table II.)

As reflected in the IBM count, the school age (6 to 18 years, inclusive) population constitutes 34.9% of the total group. Unfortunately, for purposes of comparison, published reports of the Bureau of the Census do not provide annual or other age groupings from which exact data can be derived relative to this particular segment of the population. However, in the 1960-61 school year, 28,179 children, 6 to 18 years in age, were officially reported by the Bureau of Indian Affairs[9] as enrolled in schools of all types. At the same time, based on IBM data, 5712 children in the same age group were estimated as the number out of school for various reasons. Information based on an actual count is not available, but it is known that a significantly large number of children in each school district throughout the Reservation area, either in the 6-year old group or in older age groups, are not enrolled in any school. If it is postulated that even as small a proportion as 10% of the school age population was not enrolled in any type of school in the 1960-61 school year, and if 28,179 is accepted as the actual enrollment of children aged 6 to 18, inclusive, the total school age population could not have been less than 31,300, and the total

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[8] 1704 children, born in 1961 and under one year of age, were shown in the December 7, 1961 count. This number was conservatively adjusted to 3200 on the basis of the numbers of children shown as one and two years old (3200 and 3271, respectively).

[9] Statistics concerning Indian Education, fiscal year 1961, Publ. U. S. Dept. of the Interior — Bureau of Indian Affairs.

population of which this segment forms a part could not be less than 89,680. The high degree of stability which has characterized the 5 to 14 year age group in terms of its ratio to the total population is a strong indication that a similar degree of stability attaches to the 6 to 18 year group as one constituting about 35% of the total population at any given time.

The known relative stability of the ratio between the 5 to 14 year age group and the total Navajo population, ranging between the narrow limits of 28.61% and 29.99% over a period of 50 years or more, offers a basis upon which to develop a close estimate of the total population of the Tribe, provided the number of tribal members aged 5 to 14 years, inclusive, can be determined with a close degree of accuracy.

The difference between reported births as reflected in the "under 1 year" age group in the IBM count (Table IV) and the actual number of birth certificates issued by the States of Arizona and New Mexico in 1959 and 1960 — 3,271 out of 3,675 registered in 1959, and 3,200 out of 4,024 registered in 1960 — may provide some indication of the number of Navajos residing entirely outside the Navajo Country, inasmuch as only about 80% of the registered births are reflected in the IBM count in 1960, and 87% in 1959, leaving between 13% and 20% of all registered births to be accounted for by the Ramah, Canoncito and Alamo Navajo populations, (aggregating 2,247 persons in November 1960,) and by segments of the Navajo population resident in other parts of the two states. In addition is the uncounted and unknown number of birth registrations for Navajo babies born in Utah. Inasmuch as the Navajo population reported by the 1960 census for Utah (2,031) and the aggregate population of Ramah, Canoncito and Alamo (2,247) are sufficiently close to counter-balance each other. it would appear that upwards of 13% of all registered Navajo births in Arizona and New Mexico are for children who are not reported by the Subagencies for inclusion in the IBM count, and who, with their parents, constitute part of the *ethnic* or *tribal* population.

The number of Navajos resident outside the Navajo Country in Arizona and New Mexico, of whom some may not be included in the IBM count, could range as high as 2,000 to 4,000 persons or more. An additional population resides in the Los Angeles, San Jose, San Francisco-Bay areas, as well as in Denver, Salt Lake City, Dallas, Cleveland, Chicago and elsewhere, but its number is unkown. In the past the *total* population which lives independently of Reservation area resources has been placed at about 7,000 persons. The estimate is arbitrary — in the nature of an "informed guess," but as the development of a tribal roll will doubtless indicate, it is a significant segment of the *tribal* population, and one which will continue to claim tribal benefits.

As in the past, the Navajo population remains a predominately young group. As noted in Table I, between 56.6% (based on the IBM count) and 58.6% (based on the Manyfarms population) are under 20 years of age, in contrast with 38.5% of the population of the United States.[10] Likewise, the median age for Navajo population appears to fall between 17 and 18 years, in contrast with 29.5[10] for the National population.

Until a tribal roll is developed, or until other more accurate sources of information become available, the estimated Bureau of Indian Affairs *service* population remains the 73,614 reflected officially in "United States Indian Population and Land, 1960-61."[11] On the basis of supporting data as outlined in preceding paragraphs, the *ethnic* population of the Tribe can be estimated between 88,000 - 90,000 in 1961, and this population base is used elsewhere in the present edition of The Yearbook as a basis for estimating the value of per capita income and *tribal* benefits. It is the estimated *tribal* service population.

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[10] See U. S. Census of Population, 1960 — U. S. Summary, General Population Characteristics — Publ. 1960 — Bureau of the Census.

[11] Publ. Oct. 1961 by U. S. Dept. of the Interior, Bureau of Indian Affairs, Washington, D. C.

TABLE I

NAVAJO POPULATION BY PROPORTIONATE AGE-GROUPS - COMPARATIVE

VARIOUS CENSUSES AND ENUMERATIONS

1910 TO 1961

	(1) 1910		(2) 1915		(3) 1920		(4) 1950		(5) 1960		(6) 1961 IBM		(7) Manyfarms-1959	
AGE-GROUPS	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total
Under 5 years	3,916	17.50	2,585	21.69	6,578	16.86	10,934	17.01	6,322	19.63	14,976	16.04	449	19.82
5 to 14 years	6,681	29.85	3,480	29.21	11,164	28.61	18,821	29.28	9,277	28.80	28,006	29.99	648	28.61
15 to 19 years	2,499	11.17	1,400	11.75	4,267	10.93	7,022	10.93	- (5)	-	9,900	10.60	231	10.20
20 to 24 years	1,770	7.91	888	7.45	3,880	9.94	5,675	8.83	- (5)	-	8,890	9.52	181	7.99
25 to 44 years	4,931	22.04	2,277	19.11	8,417	21.57	13,028	20.27	6,390	19.84	20,029	21.45	458	20.22
45 to 59 years	1,357	6.06	778	6.53	2,794	7.16	5,130	7.98	- (5)	-	7,253	7.77	170	7.51
60 yrs. and over	1,223	5.46	507	4.25	1,926	4.94	2,663	5.70	- (5)	-	4,303	4.61	128	5.65
Total Population	22,377	99.99	11,915	99.99	39,026	100	64,274	100	32,211 (5)	68.27 (5)	93,357	99.98.	2,265	100
Under 20 years of age	13,096	58.52	7,465	62.65	22,009	56.40	36,777	57.22			52,882	56.64	1,328	58.63

[1] U. S. Department of Commerce; Bureau of the Census, "Indian Population of the United States and Alaska: 1910." (DFJ)

[2] "Census of the Navajo Reservation under the Jurisdiction of Peter Paquette, Year 1915," Wash. D. C. (File No. 64386-14-034) (DFJ) The area involved is the old Southern or Fort Defiance Agency jurisdiction.

[3] U. S. Department of Commerce; Bureau of the Census, "The Indian Population of the United States and Alaska: 1930." (DFJ)

[4] U. S. Department of Commerce; Bureau of the Census, "1950 Census of Population, Special Report P-E No. 3B, Non-white Population by Race."

[5] U. S. Department of Commerce; Bureau of the Census, "United States Census of Population: 1960. Final Report PC(1)-33B (New Mexico)" and "PC(1) 4B (Arizona). The sample, aggregating 32,211 persons, includes the following Census Enumeration Divisions: (New Mexico) Reservation Division, Newcomb Division; (Arizona) Chinle Division, Ganado Division, Rock Point Division, Wide Ruins Division, Indian Wells Division, and Navajo Monument Division, as reported in Table 26, Age by Sex, for Census County Divisions. These are the only Census Divisions in which the persons enumerated are clearly 90% or more Navajo.

Unfortunately, the age-groupings given in Table 26 do not include 15 to 19 years, 20 to 24, 45 to 59 or 60 years and over, to permit comparison of these specific age groups with proportions available from other enumerations. See Table II.

[6] Based on a count of IBM cards by the Data Processing Section, Gallup Area Office, as of December 7, 1961. See Table IV for annual age-groupings.

TABLE II

NAVAJO POPULATION BY PROPORTIONATE AGE-GROUPS

REARRANGED TO CORRESPOND WITH THE AGE GROUPINGS PUBLISHED

BY THE BUREAU OF THE CENSUS IN 1960 *

	1910	(1)	1915	(2)	1930	(3)	1950	(4)	1960	(5)	1961 IBM	(6)	Manyfarms-1959	(7)
AGE-GROUPS	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total	Number	Percent Total
Under 5 years	3,916	17.50	2,585	21.69	6,578	16.86	10,934	17.01	6,322	19.63	14,976	16.04	449	19.82
5 to 14 years	6,681	29.85	3,480	29.21	11,164	28.61	18,821	29.28	9,277	28.80	28,006	29.99	648	28.61
15 to 24 years	4,269	19.08	2,288	19.20	8,147	20.87	12,698	19.76	5,471	16.98	18,790	20.13	412	18.19
25 to 44 years	4,931	22.04	2,277	19.11	8,417	21.57	13,028	20.27	6,390	19.84	20,029	21.45	458	20.22
45 yrs. and over	2,580	11.52	1,285	10.78	4,720	12.10	8,793	12.68	4,751	14.75	11,556	12.38	298	12.16
Total Population	22,377	99.99	11,915	99.99	39,026	100	64,274	100	32,211	100	93,357	99.99	2,265	100

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* See Table 26, United States Census of Population - 1960; Arizona and New Mexico
(1) (2) etc. (See footnotes, Table I)

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TABLE III

NAVAJO POPULATION BY PROPORTIONATE AGE-GROUPS (1)

National Census - 1960

Census Enumeration Division	AGE GROUPS Under 5 Years	5 to 14 Years	15 to 24 Years	25 to 44 Years	45 Years and Over	Total	% Identified as (2) Navajo
Arizona:							
1. Chinle Division	1,257	1,746	1,077	1,288	911	6,279	93.15%
2. Ganado Division	885	1,280	774	915	685	4,539	94.01
3. Rock Point Division	910	1,223	711	823	595	4,262	97.655
4. Wide Ruins Division	616	1,035	628	667	553	3,499	95.60
5. Indian Wells Division	523	728	405	509	380	2,545	97.84
6. Navajo Monument Division	703	932	616	629	359	3,239	94.75
Arizona Total	4,894	6,944	4,211	4,831	3,483	24,363	95.50 Average
New Mexico:							
1. Reservation Division	637	1,111	444	728	543	3,463	95.99
2. Newcomb Division	791	1,222	816	831	725	4,385	97.49
New Mexico Total	1,428	2,333	1,260	1,559	1,268	7,848	96.74 Average
ARIZONA-NEW MEXICO TOTAL	6,322	9,277	5,471	6,390	4,751	32,211	96.12 Average

[7] Provided by the Cornell-Manyfarms Clinic. The population involved is that of the research project, and it was carefully checked and maintained on a current basis in order to provide accurate data for the computation or morbidity, mortality, birth, death, and other rates. The population is shown as of 1959.

[1] The data reflected in this table are derived from Table 25, Characteristics of the Population, for Census County Divisions: 1960 - "General Population Characteristics: New Mexico PC (1)-33B, and Arizona PC (1)-4B." Of the Census Divisions containing Navajo and non-Navajo population, only those reflected in Table III above are so located that they clearly contain 90% or more Navajos.

Table 25 of the Bureau of the Census publication in reference above shows the total number of persons enumerated in each Census Division, and breaks this total down into *white, negro* and *other*. With reference to the Census Divisions composing this sample, *other* clearly comprises Navajos, almost exclusively.

[2] The relative proportion of Navajos is shown in Table III above as a percentage of the total number of persons enumerated in each Census Division who are identified, under *race,* as *other* nonwhite.

TABLE IV
NAVAJO POPULATION AS OF DECEMBER 7, 1961
IBM COUNT - BY YEAR OF BIRTH AND AGE

YEAR OF BIRTH	Age 12/7/61	Number	% Total	YEAR OF BIRTH	Age 12/7/61	Number	% Total
1961	Under 1 year	3,200 [1]	3.43	1911	50	484	0.52
1960	1	3,200	3.43	1910	51	576	0.62
1959	2	3,271	3.81	1909	52	449	0.48
1958	3	2,466	2.64	1908	53	505	0.54
1957	4	2,839	3.04	1907	54	437	0.47
1956	5	3,339	3.57	1906	55	485	0.52
1955	6	3,329	3.57	1905	56	390	0.42
1954	7	3,096	3.32	1904	57	435	0.47
1953	8	3,021	3.24	1903	58	381	0.41
1952	9	2,820	3.02	1902	59	338	0.36
1951	10	2,601	2.79	1901	60	287	0.31
1950	11	2,582	2.77	1900	61	360	0.39
1949	12	2,691	2.88	1899	62	277	0.30
1948	13	2,279	2.44	1898	63	285	0.31
1947	14	2,248	2.41	1897	64	211	0.23
1946	15	2,162	2.32	1896	65	234	0.25
1945	16	2,013	2.16	1895	66	219	0.23
1944	17	1,897	2.03	1894	67	172	0.18
1943	18	1,877	2.01	1893	68	185	0.20
1942	19	1,951	2.09	1892	69	175	0.19
1941	20	1,914	2.05	1891	70	160	0.17
1940	21	1,802	1.93	1890	71	227	0.24
1939	22	1,676	1.79	1889	72	171	0.18
1938	23	1,826	1.96	1888	73	174	0.19
1937	24	1,672	1.79	1887	74	121	0.13
1936	25	1,690	1.81	1886	75	101	0.11
1935	26	1,429	1.53	1885	76	93	0.10
1934	27	1,355	1.45	1884	77	93	0.10
1933	28	1,220	1.31	1883	78	97	0.10
1932	29	1,327	1.42	1882	79	77	0.08
1931	30	1,066	1.14	1881	80	65	0.07
1930	31	1,203	1.29	1880	81	87	0.09
1929	32	1,078	1.15	1879	82	53	0.06
1928	33	1,073	1.15	1878	83	55	0.06
1927	34	895	0.96	1877	84	38	0.04
1926	35	924	1.00	1876	85	36	0.04
1925	36	883	0.95	1875	86	31	0.03
1924	37	930	1.00	1874	87	34	0.04
1923	38	797	0.85	1873	88	36	0.04
1922	39	799	0.85	1872	89	27	0.03
1921	40	740	0.80	1871	90	23	0.02
1920	41	786	0.84	1870	91	34	0.04
1919	42	629	0.67	1869	92	13	0.01
1918	43	699	0.75	1868	93	20	0.02
1917	44	506	0.54	1867	94	7	0.01
1916	45	599	0.64	1866	95	9	0.01
1915	46	529	0.57	1865	96	3	0.00
1914	47	559	0,60	1864	97	2	0.00
1913	48	529	0,57	1863	98	6	0.01
1912	49	548	0.59	1862	99	5	0.00

TOTAL . . . . 93,377 [2]

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[1] Actual count for 1961 was 1,704; adjusted to 3,200 (total for 1960) to more accurately reflect total births for the year which were not yet reported or recorded.

[2] Total includes adjusted number for 1961 - see footnote (1)

Navajo Tribal Program

For many years prior to 1950 the Navajo Tribe looked to the Bureau of Indian Affairs for nearly all necessary services including health, education, welfare and law enforcement as well as for the development of Reservation resources. In 1950 the Navajo-Hopi Long Range Rehabilitation Act (Public Law 474, 81st Congress) was signed into law, providing, in Section 7, that "Notwithstanding any other provision of existing law, the tribal funds now on deposit or hereafter placed to the credit of the Navajo Tribe of Indians in the United States Treasury shall be available for such purposes as may be designated by the Navajo Tribal Council and approved by the Secretary of the Interior". At the same period the policy of Congress was expressed as one designed to encourage Indian tribes to assume an increasing share of responsibility for the management of their own affairs.

Largely as a result of the authority contained in the Long Range Act, the Navajo Tribe has acted to develop and maintain an ever expanding program of community services and resources developmental programs for which funds are not available from Federal or State sources. The availability of increased Tribal income, especially after 1956, has lent impetus to the growth and effectiveness of the Tribal organization and has encouraged the Council to broaden the scope of its operation, a fact which is amply reflected in the growth of the Tribal budget during the period 1951 to 1962, as summarized below:

YEAR	BUDGET	YEAR	BUDGET	YEAR	BUDGET
1951 1/	1,217,888	1955	2,460,913	1959	22,893,365
1952 1/	1,991,347	1956	3,368,333	1960	35,519,472 (2)
1953	447,618	1957	6,626,416	1961	23,453,034
1954	1,378,203	1958	15,039,813	1962	16,785,406 (3)

1/ Includes an item of $1,000,000 appropriated for enterprise and other loan purposes in 1951, but carried over and included in the 1952 budget.

2/ Included $12,066,438 not anticipated for expenditure in 1960-1961

3/ Exclusive of $7,086,280 in funds carried over from the previous fiscal year.

Actually, for the past 2 years, the Tribal budget has been slightly more than one-half as large as the amount of Federal appropriations allocated to Navajo Agency during the same years. The scope of the present day Tribal operation is shown in greater detail in the 1961 fiscal year budget summarized herewith:

LEGISLATIVE BRANCH:	F.Y. 1961
General Council	$ 358,240
Advisory Committee	108,856
Budget and Finance Committee	17,164
Education Committee	25,416
Health Committee	30,996
Welfare Committee	10,212
Police Committee	19,844
Relocation Committee	10,512
Resources Committee	20,304
Loan Committee	8,190
Trading Committee	3,276
Tribal Parks Commission	9,520
Chapters	198,144
Grazing Committee	139,392
Land Boards	27,216
District Council	47,952
Tribal Utility Authority	15,720
Judicial Committee	9,432
Legislative Secretary	120,396
TOTAL	$1,180,782
RESOURCES DIVISION:	
Director, Resources Division	$ 69,290
Shiprock Farm Training	117,841
Chaco Canyon Ranch	18,478
Extension	91,551
Mining	22,082
Grand Water Dev.	869,816
Heavy Equipment Pool	231,612
Realty	44,608
Farm & Range Conservation	276,000
Brand Inspection	10,000
TOTAL	

EXECUTIVE BRANCH:	F. Y. 1961
Chairman & Vice Chairman	$ 96,290
General Counsel	183,636
Legal Aid	52,986
Claims	200,000
Land Investigations	258,483
Executive Secretary	48,808
Records Management	31,516
TOTAL	$ 871,719
PUBLIC SERVICES DIVISION:	
Director, Public Services	$ 41,798
Health, Education & Welfare	26,344
Health	164,340
Education	976,776
Welfare	765,382
Community Development	78,620
Public Works & Housing	725,538
Navajo Police Department	1,305,749
Probation and Parole Dept.	17,258
Public Works	575,000
TOTAL	$4,676,805
RESOURCES DIVISION:	
Agriculture & Livestock	$ 79,200
Bar-N Ranch	34,388
Irrigation O & M	222,241
Tribal Enterprises	7,150,380
Oil & Gas Dept.	71,199
Water Well Maintenance	369,257
Forestry	56,259
Subagency Personnel	35,290
Shallow Well & Spring Development	921,000
Industrial Planning & Dev.	119,000
	$10,809,492

ADMINISTRATION:	F.Y. 1961
Director, Administration	$ 43,291
Transportation Section	24,260
Employment & Personnel	44,140
Department of Controller	182,706
Property & Warehousing	126,500
Construction Section	78,928
Maintenance Section	221,552
Dept. of Treasurer	24,470
Purchasing Section	23,116
Insurance and Taxes	186,000
Vital Statistics	38,315
TOTAL	$993,278
JUDICIAL BRANCH:	
Tribal Judges & Courts	$135,694
TOTAL	$135,694
PUBLIC FACILITIES & SERVICES:	
Navajo Civic Center	$ 40,000
Tuba City Community Center	40,000
Navajo Tribal Parks & Rangers	155,492
Navajo Youth Camp	38,572
Navajo Tribal Fair	30,000
Navajo Tribal Band	40,000
TOTAL	$ 344,064

CAPITAL ADDITIONS:	F. Y. 1961
Airport Improvement, W.R.	$ 122,000
Research & Planning	250,000
Chapters & Community Centers	1,170,000
Police Facilities	761,600
Fair Exhibit Building	100,000
Fire Truck	11,500
Nataani Nez Addition	71,100
Utility Systems	500,000
Youth Camp	260,000
Private Enterprise Dev.	1,000,000
Heating and Water Systems	25,000
Road Construction	170,000
TOTAL	$4,441,200
GRAND TOTAL 1/	$23,453,034

1/ The 1961 Tribal Budget is shown above in the form in which it was approved by the Tribal Council. Subsequent amendments made during the course of the fiscal year for Emergency Feed Grain, Public Works and other purposes are not reflected, nor is the actual level of expenditure at the close of the fiscal year. Obviously, the total amount budgeted under Tribal Enterprises for sawmill construction was not used in fiscal year 1961. The budget outline is provided primarily for the purpose of reflecting Tribal organization and program.

The Tribal Judiciary: During the period 1952-1959, the office of Judge in the Navajo courts of Indian Offenses was elective. The Judges were chosen from candidates nominated in each of the Election Provinces in the course of Tribal elections.

However, as elective officers the Tribal Judges could not divorce themselves from internal politics, and in October, 1958, the Tribal Council adopted a resolution entitled "To provide for the appointment rather than the election of Tribal Judges, and for other purposes." This enactment established eligibility requirements for the office, and a two-year probationary period after which trial judges could be given permanent appointments to serve until they reach the age of 70 years. The resolution in reference provided for seven judges, of whom one is designated as Chief Justice. They preside over Tribal Courts located at Fort Defiance, Chinle, Tuba City, Shiprock, Crownpoint and Ramah.

The Trial Courts of the Navajo Tribe have jurisdiction over all violations of the Tribal Law and Order Code committed within their jurisdiction; over all civil actions in which the defendant is an Indian and is found within the jurisdiction of such courts; over domestic relations of Indians and over the estates of decedents. Provision is made for trial by jury and for the appeal of decisions of the Trial Courts.

In fiscal year 1961, $135,694 was budgeted by the Tribe to defray the cost of operating the Reservation court system.

The Tribal Division of Public Services: Although the Tribe budgeted funds for certain types of welfare services in prior years, it was not until February, 1957, that a Department of Community Services was created to administer Tribal programs in the fields of welfare, health, education and community development, and to provide a medium for liaison with parallel state and Federal agencies.

With reorganization of the Executive Branch of the Tribal Government in August, 1959 (CAU-50-59), the Department of Community Services was replaced by the present Division of Public Services which in turn supervises the work of six Departments known as the Departments of Health, Education and Welfare, Community Development, Design and Construction, Police, Probation and Parole, and Special Programs.

Tribal programs conducted by the Departments functioning under this Division include:

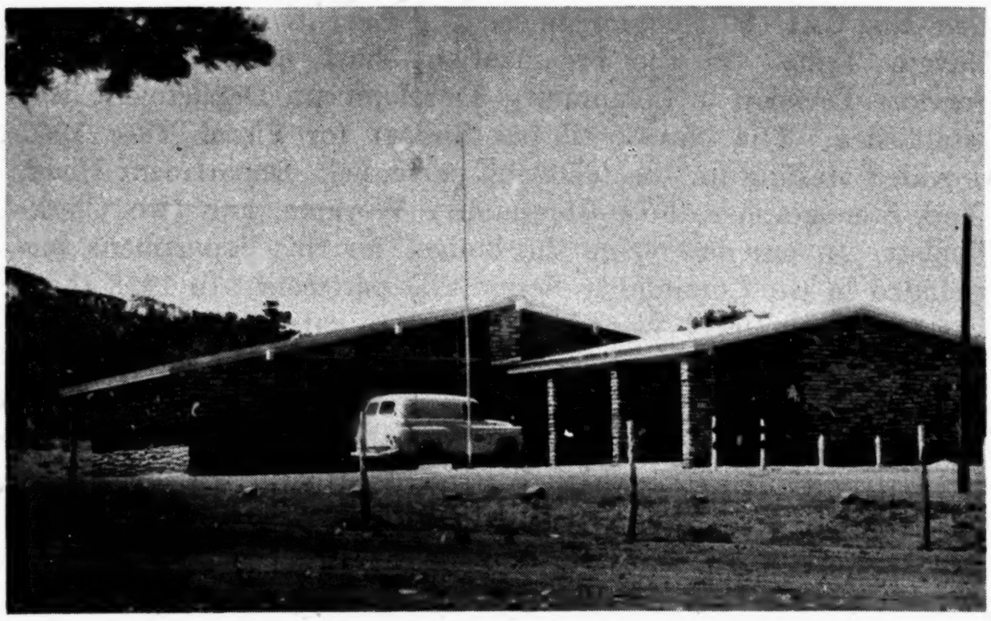
(a) The provision of eyeglasses, hearing aids, dental prosthetics, wheelchairs and layettes under special conditions established by the Council.

(b) The purchase and distribution of clothing to Navajo school children. This service was initiated in 1955 with an appropriation of $350,000, and since that time the amount appropriated annually for this purpose has grown to $750,000, in 1961. During the period 1955 to 1961, inclusive, a total of $3,630,000 has been used for this purpose. The program assures each school child of an adequate wardrobe for the sake of appearance as well as for protection against the elements, and at the same time it has proven to be a valuable incentive to school enrollment and attendance.

In the field of welfare, the Tribal program attempts to fill the gaps in Federal and State Programs to meet the emergent needs of persons who are ineligible for assistance from usual sources. The Tribal program includes assistance to meet family emergencies, death, fire, housing repair, and the distribution of surplus commodities.

The Department of Community Development is concerned with the development and use of the Chapters throughout the Reservation area, emphasizing community programs concerned with citizenship, health, recreation and education for the Navajo people at a community level.

Begun in the mid-1920's by the Bureau of Indian Affairs, the Reservation Chapter system established a medium through which the Navajo people throughout the Navajo Country could participate in Tribal government.



The new Chapter House, erected by the Navajo Tribe at Navajo Mountain, provides a modern community center for the surrounding people.

During the stormy period of the 1930's and 1940's, the Chapters declined in importance, but in the early 1950's they began to revive. Small appropriations of Tribal funds were made from time to time thereafter to repair and construct Chapter houses, and to pay Chapter officers, but it was not until after 1956 when Tribal income increased sharply that any significant amount of money was authorized for appropriation, or any broad scale plans were developed for expansion of the Chapter system on a Reservation wide basis. By terms of Council Resolution No. CM-46-57, adopted on May 14, 1958, the appropriation of a total of $2,500,000 over a 5-year period was authorized for the construction and repair of Chapter houses and Community centers.

The following detailed reports by Heads of the Tribal Departments concerned, outline in detail some of the major Tribal programs in the field of Public Services.

The Chapter House Program:[1] The Chairman of the Navajo Tribal Council and the Department of Community Services together with the several Community Services Committees were authorized to develop programs to assist chapters and community centers to operate, utilize, and maintain the facilities in 1957. Resolution CM 46-57, Tribal Development Program - Part II, Community Development, Authorizing Construction and Operation of Chapter Houses to awaken interest in community planning and activities among their own people.

On August 6, 1959, the Navajo Tribal Council, by Resolution No. CAU 50-59, reorganized the Executive Branch of the Navajo Tribe. In the organization chart under the Public Services Division a Community Development Department was established. The Navajo Tribal Budget for Fiscal Year 1961 provided staffing for the following personnel: Department Head, Clerk-Stenographer, Five Community Workers, and two Clerk-Typists. In previous years the budget for this department was included in the Community Services Department. In 1958 there was one Community Worker employed to carry out the services to the various outlying communities and last year this number was increased to five so each Subagency area could be served by a worker assigned to chapters within these areas.

The Advisory Committee recognized 85 chapter organizations as being certified according to Resolution CJ-20-55 and these were found eligible to receive grants for the construction of Chapter houses. Eleven new Chapters have been certified since that date, increasing the number to 96. It is the aim of the Community Development Department to provide each of the 96 Chapter organizations with a community house which will serve as a local government building for the Chapter and provide facilities for education, social, and recreational programs for their people. Community centers are helping to establish better communication between the Tribal offices and the Navajo people; they serve as a coordinating function for the extension agents of various governmental departments within Subagencies; they are centers for training and practicing the elementary principles of citizenship; they house the people who make and carry out project plans for community improvement. Today many of the larger communities are taking their first step toward planning the physical development of their communities by securing the advice of recognized planners on the future layouts of small towns and the employment potentials over a period of twenty years or more. There still remains much planning before the actual plans materialize, but these communities are learning the fundamentals of sound and reasonable planning. Some of the communities that are to be planned in the future are Tuba City, Fort Defiance, Shiprock, Tohatchi, Navajo, Chinle, Kayenta, and Crownpoint.

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[1] Prepared by Mr. Ralph Johns, Department Head, Navajo Tribal Community Development Department.

The new Tuba City Community Center.

The Community Development Department has been placing primary emphasis upon the Chapter house construction program which will eventually provide each organization with a new building. There is much preliminary work to be accomplished before each structure is actually authorized for construction.

Each Chapter organization must complete the following information relative to their particular location before affirmative action may be taken to proceed with preliminary work and actual construction:

1. Type of chapter house requested and cost
2. Description
3. Utilities to be provided
4. Furnishings and equipment to be provided
5. Rooms to be provided
6. Community activities
7. Population of Community
8. Existing community facilities and utilities
9. Average meeting attendance
10. Community plan to provide cost of operation and maintenance
11. Community Funds available
12. Outstanding Bills
13. Signatories to Agreement.

When the above information has been furnished and completed on the proper form, the Chapter Officers of the requesting organization sign the agreement. The agreement is to assume full responsibility for costs of operation and maintenance of the Chapter house and all facilities therein described, and they further agree to abide by all policies, procedures, and standards relating to the Chapter program adopted by the Navajo Tribal Council. Each of these applications is considered and completed at a meeting or meetings called by the President of the Chapter, and in addition they are required to support their application with individual signatures of not less than 100 adult members of the community to be served. The new procedures outlined above were adopted by Resolution ACAP-61-60 of the Advisory Committee of the Navajo Tribal Council.

Each Chapter selects one of several approved architectural plans and selects a site suitable for Advisory Committee approval. There must be a developed source of water near the building site, and it is not to be piped in excess of 2,000 feet. Every effort is made to have these buildings located adjacent to schools, clinics, police substations or other service facilities, in order that custodial attention may be provided by someone living nearby.

The construction of these buildings is done by force account with employment preference given local qualified workers. The local available labor is rotated every ten days to allow maximum community participation. A formal dedication program is planned by the recipient communities upon completion. All buildings house an assembly room, conference room and kitchen while certain others contain sewingrooms, restrooms, and laundry.

Investment in New Chapter House Construction

Fiscal Year 1958	$ 202,972.92
Fiscal Year 1959	951,761.89
Fiscal Year 1960	1,077,616.13
TOTAL	$2,232,350.94

The Navajo Tribal Council appropriated $1,170,000 for Fiscal Year 1961, for the construction of Chapter houses at an average cost of $65,000 each.

The following locations have received new Chapter houses during the years indicated:

1957-1958	*1958-1959*	*1959-1960*
Aneth	Alamo	Kayenta
Inscription House	Canoncito	Kinlichee
Many Farms	Coalmine Mesa	Navajo Mountain
Naschitti	Coppermine	Pinedale
Steamboat	Dilkon	Red Lake
Twin Lakes	Fruitland	Sheepsprings
White Cone	Indian Wells	Sweetwater
	Lake Valley	Thoreau
	Lukachukai	Tohatchi
	Mariano Lake	
	Mexican Water	
	Pinon	
	Red Rock, Dist. 12	
	Sanostee	
	Shonto	
	Smith Lake	
	St. Michaels	
	Teecnospos	
	Wide Ruins	
	Birdsprings	
	Blue Gap	
	Brad Springs	
	Chinle	
	Houck	

An attempt is being made by the staff of the Community Development Department to have larger and better equipped community houses for meeting, recreational, and educational purposes. The intent is to awaken interest in community planning, provide a place where Bureau schools and adult education leaders may develop their programs, to provide a center where Public Health personnel may conduct clinics, and organize recreational activities for youth and adults.

Another emphasis in the program is to initiate money raising activities, because the Chapters are required to meet the cost of operation and maintenance. Many of the Chapters have scheduled weekly movies, instituted cooking classes, health education classes, and small concessions. The Community Workers serving these communities assist the officers at meetings and conferences to better the program by providing technical information in lay language. A follow-up is made to each organization and recommendations are made for improvement.

The Tribal Welfare Program:[2] In accordance with the Navajo Tribal Council Resolution CJ-10-57, approved by a vote of 62 in favor and none opposed on January 31, 1957, the Department of Community Services was organized. However, it was not until 1958 that the Department became active in the following programs:

Education, health, welfare and community development.

The primary objective of the Tribal Welfare Program was to assist needy families who are in urgent need but who are unable to establish their eligibility for aid under the requirements of other welfare agencies, or because of temporary illness or disability.

Resolution ACJ-31-57 was passed by the Advisory Committee on June 20, 1957, in accordance with which the Tribal Council appropriated specific funds for Tribal Welfare assistance. This resolution was passed in conjunction with establishment of a Tribal Welfare policy, and standards of eligibility.

The Tribal Emergency Welfare program includes: temporary cash assistance, assistance in cases of destruction of the home by fire or disaster, burial and emergency transportation assistance, health rehabilitation assistance and a surplus commodity program for Arizona residents.

The Tribal Welfare workers also serve as family counsellors and as interpreters for the Social Security representatives.

The Advisory Committee resolution entitled Establishing Policies and Standards for the Navajo Welfare Program (ACJ-31-57), was repealed by Resolution ACA-88-58 on August 14, 1958. On March 16, 1960, Resolution ACMA-52-60 repealed and replaced Resolution ACMA-88-58, and the former remains in effect.

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[2] Prepared by Mr. John Y. Begaye, Head of the Health, Education and Welfare Department of the Navajo Tribe.

On January 25, 1960, the Navajo Tribal Council abolished the name "Community Services Department" and renamed it the Public Services Division in conformity with Resolution CAU-50-59 of the Navajo Tribal Council, adopted on August 5, 1959. The reorganized Tribal Welfare Section is responsible to the Public Services Division for planning, organizing and administering the Tribal Welfare program authorized by the Tribal Council meeting needs not otherwise met by other welfare agencies.

The Tribal Welfare Committee assists in the planning and coordination of broad programs and develops policy recommendations in the field of Tribal welfare.

Tribal Welfare Housing Program: Navajo Tribal Council Resolution CN-56-56 appropriated Emergency Relief Funds for various types of assistance to the needy Navajo people.

Under this appropriation, the furnishing of housing material was authorized for certain needy Navajo people to relieve crowded and unsanitary situations; the beneficiaries supply their own labor in constructing or improving their homes with the materials provided by the Tribe. In cases of disability, or where construction by clients, is not feasible for other reasons, a prefabricated house is provided. To July, 1960, 64 prefabricated houses were made available by the Tribe.

The Surplus Commodity Program: Under the provisions of Navajo Tribal Council Resolution No. CA-55-58 and Advisory Committee Resolution No. ACA-88-58, funds were provided for the distribution of surplus commodities. The Navajo Tribal Council agreed that the Tribe would become the sub-distributing agent for the Arizona State Department of Public Welfare. This distribution is made in accordance with the standards established in the plan of operation of the Arizona State Department of Public Welfare, dated March 26, 1958.

Eligibility is determined in accordance with the standards established by the State of Arizona, and include:

(A) Recipients of public assistance under the regulations of the Arizona State Department of Public Welfare;

(B) Needy persons not eligible for public assistance under existing regulations based on employability income and residence, including

  (1) Those in low or marginal income situations ($100 per month for one person, $155 for two persons, and $220 for three or more persons).

  (2) Situations where the applicant owns an automobile or an equity in a motor vehicle having a Blue Book value of $1200 or less.

(3) The exceptions to the income limitation above are that, in no event, will a person or family be eligible for surplus commodities when the customary and primary "Breadwinner" is fully employed.

(C) Recipients of general assistance under the regulations of the Bureau of Indian Affairs Branch of Welfare, as long as their cases remain active.

The eligibility of all persons receiving surplus commodities is certified by a Tribal Welfare worker in the following manner:

An application is taken, using the same forms used by the Arizona Department of Public Welfare. If possible, direct or collateral verification to the effect that need exists must be secured; however, an intake interview may be acceptable. Re-certification of those who are eligible to receive commodities and who are not on public assistance rolls, is made every 90 days.

From the existing case records and certification approvals, a master file of IBM cards are punched. This master file contains all active or inactive cases for surplus commodities distribution throughout the reservation.

At the present time (1960), five commodities are available to needy Navajo Indians including flour, cornmeal, powdered milk, rice, and lard. Commodities are kept in newly built warehouses of fireproof construction, located at Window Rock and Tuba City, Arizona. Distribution to communities where commodities are issued is made by three vans on a regular monthly schedule. At the present time, there are 48 field distribution points. This arrangement is necessary to enable Navajo people with limited means of transportation to receive delivery near their homes.

Most contacts with beneficiaries are made through the Navajo Hours over radio stations in Farmington and Gallup, New Mexico, and Flagstaff, Arizona. Costs of transportation, storage, distribution, and certification are paid by the Navajo Tribe, Public Services Divison. Accountability for commodities remains the responsibility of the State Department of Public Welfare, and the Navajo Tribe is guided by their requirements. Regular reports are submitted to the Arizona State Department of Public Welfare showing monthly activity. All commodities assigned to the Navajo Tribe are shipped prepaid to the nearest railhead where Tribal welfare trucks are used to transfer them to the warehouses.

Distribution of commodities is made in accordance with the distribution guide as established by the U. S. Department of Agriculture.

Preliminary planning for the surplus commodities distribution program on the Navajo Indian Reservation started in the spring of 1958, but actual distribution did not start until February, 1959. In fiscal year 1959, the Navajo Tribal Council appropriated $116,650 to implement the program.

TOTAL SURPLUS COMMODITY DISTRIBUTION

	POUNDS - F. Y. 1961						
MONTH	FLOUR	CORNMEAL	RICE	DRY MILK	LARD	TOTAL FAMILIES SERVED	TOTAL PERSONS SERVED
Feb. 1959	70,260	44,765	18,761	32,360			10,971
Mar. 1959	57,840	38,465	15,877	26,082		4,884	13,278
Apr. 1959	71,020	44,470	18,638	31,878			15,528
May 1959	62,790	39,664	16,519	28,472		4,158	13,856
June 1958	63,800	41,400	17,287	28,458		3,557	15,299
July 1959	65,600	42,010	17,279	29,322		3,644	14,645
Aug. 1959	64,240	51,355	20,958	28,647		3,582	14,985
Sept 1959	61,290	78,565	28,363	20,966		3,564	13,748
Oct. 1959	45,160	46,725	12,143	3,807		2,433	10,379
Nov. 1959	41,630	26,575	10,803	18,509		2,137	9,382
Dec. 1959	38,210	25,115	10,429	17,114		2,221	8,864
Jan. 1960	40,650	25,735	10,699	18,203	8,924	2,304	9,111
Feb. 1960	38,630	25,490	10,593	17,294	9,013	2,307	9,019
Mar. 1960	49,440	31,430	12,989	22,158	11,124	2,803	11,130
Apr. 1960	33,120	30,195	13,425	22,176	11,508	2,860	11,327
May 1960	36,700	46,590	13,791	23,877	11,972	2,925	12,147
June 1960	46,260	37,315	15,209	24,759	13,344	3,070	13,360
TOTALS	886,640	675,864	263,763	394,082	65,885	46,471	207,029

The Tribal Schoolchildren's Clothing Program: The Tribal School Clothing Program was established by the Tribal Council in 1954, but it was not until 1955 that it was in full operation for a complete year. The Public Services Division works closely with the Tribal Education Committee and the Branch of Education of the Bureau of Indian Affairs in administering the children's clothing purchase and distribution.

Employees of the Bureau of Indian Affairs collaborate with the Tribe in the conduct of the Clothing Program, measuring the children for size, submitting the orders, and distributing the clothing when it is received.

The clothing is purchased from a wholesale distributor in Albuquerque, New Mexico, and distributed to the Navajo school children enrolled in 162 schools on and off the reservation. The clothing is purchased months ahead of the opening of schools. All the clothing is up-to-date and is selected in an attractive variety of styles and colors.

The purpose of the clothing program is to provide an adequate basic wardrobe for all needy Navajo schoolchildren. School teachers and dormitory attendants cooperate with the Tribe in taking measurements and ordering for each child. Clothing is sent directly to each school from the supplier for issuance to the children.

As the school enrollment has grown, the Tribal appropriation has also increased. The clothing program can be summarized as follows for fiscal years 1955 to 1960.

	1955-56	1956-57	1957-58	1958-59	1959-60	TOTAL
Number of Children Provided Clothing	12,212	15,034	18,559	26,225	25,225	99,448

SCHOOL YEAR 1959 - 1960

No. of Schools	Type of Schools	Enrollment	No. Provided
48	Reservation Boarding Schools	8,730	8,367
27	Reservation Day School	1,739	1,286
8	Bordertown Dormitory	2,085	2,002
10	Off-Reservation Boarding Schools	6,126	6,006
41	Public Schools 1/	7,976	6,586
21	Mission Schools 1/	1,437	1,226
7	Other Schools 1/	752	752
TOTALS		28,845	26,225

1/ Public schools, mission schools and other schools enrollment is partly based on estimates. Other statistics are taken from the official enrollment figures.

TRIBAL
APPROPRIATIONS FOR COMMUNITY SERVICES
1951 F.Y. TO 1960 F.Y.

DEPARTMENT	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	TOTAL
Committee	$	$	$	$	$ 5,976	$ 5,796	$ 15,408	$ 44,770	$ 59,602	$ 78,842	$ 210,474
Chapters				21,312	46,312	175,002	174,402	664,490	116,640	193,248	1,391,406
Community Services	500	400	74,820	154,734				47,870	114,395	341,270	733,989
Welfare			20,000	20,000	553,841	446,844	432,500	195,160	352,500	711,900	2,732,745
Social Services					9,280	9,280	9,280				27,840
Education			30,000	30,000	65,000	100,000	100,000	725,500	619,500	733,500	2,403,500
Band & Fair	5,000	5,000	36,303	36,000	24,270	24,400	24,400	29,950	77,696	61,000	324,019
Police								586,821	768,766	1,170,864	2,526,451
Health								57,750	156,750	212,500	427,000
Judiciary										106,413	106,413
Navajo Civic Center										40,000	40,000
Work Relief										5,313,345	5,313,245
Relocation Housing								25,000	23,000		48,000
Grazing					82,524	84,026	78,024				244,574
GRAND TOTAL											$16,529,656

TRIBAL
WELFARE FUNDS - 1952 F.Y. TO 1960 F.Y.

	1952	1953	1954	1955	1956	1957	1958	1959	1960
Emergency Relief	$4,000	$6,000	$6,000	$191,000	$ 6,000	$ 6,000	$ 75,000	$ 30,000	$ 60,000
Burial Assistance (Transportation 1958, 59, & 60)	2,000	4,000	4,000	4,000	4,000	4,000	7,500	7,500	17,000
Burnout Assistance							7,500	15,000	15,000
Housing Assistance (Materials)							100,000	300,000	250,000
Housing Assistance (Pre-assembled)									360,000
Eyeglasses for Students (Hearing Aids 1958, 59, & 60)					2,500	7,500	25,000	50,000	60,000
Clothing for Students				350,000	430,000	400,000	500,000	550,000	650,000
Health Rehabilitation:							22,000	133,000[1]	186,000[1]
A. Eyeglasses (adults)								30,000	30,000
B. Hearing Aids (adults)								15,000	15,000
C. Dental Expenses								20,000	20,000
D. Wheelchairs & Other Appliances								8,000	15,000
E. Layettes								60,000	120,000

[1] Grand Total of itemized list of Health Rehabilitation protheses for 1959 & 1960 F.Y.

Kinds of Tribal Welfare Assistance

There are six different types of Tribal Welfare assistance. They are as follows:

CODE I Financial Assistance

Tribal welfare assistance of a temporary nature may be provided by issuance of a check or purchase order only to an indigent person who is in immediate need.

CODE II Burnout Assistance

Tribal cash assistance may be provided, not to exceed $300, in cases of hardship caused from destruction by fire or natural disaster of a permanent dwelling containing personal belongings.

CODE III Housing Assistance

Tribal assistance for improvement of housing may be granted to eligible persons in the form of building materials not to exceed $600 in value to improve or build a dwelling. A prefabricated home or a pre-cut unassembled house may be granted to convalescents, or in other special cases, to meet standards of health, safety, sanitation, and well-being and to engender pride of home-ownership and self-reliance.

CODE IV Burial and Transportation Assistance

Tribal assistance in the amount of one half of minimum expenses may be provided in cases of death outside Navajo Country, or when death occurs under circumstances inside Navajo Country, for the purpose of returning the deceased for burial. Under certain circumstances, the Welfare Department may assist a student, parent or guardian with transportation in cases of emergency illness.

CODE V Health Rehabilitation

Tribal cash assistance may be available for health rehabilitation requirements when no such services or resources are available from other agencies, provided this cash assistance shall not include the cost of hospitalization, medical or dental care. Rehabilitation items may be authorized such as eyeglasses, hearing aids, physiological and dental prostheses, and convalescent supplies not available through the United State Public Health Services to the Navajo people.

CODE VI Surplus Commodities

Eligibility Standard. Under provisions of Resolutions CA-55-58 and ACA-88-58, the Navajo Tribal Council and its Advisory Committee have established rules for issuance of surplus commodities. In accordance with Resolution ACA-88-58, Paragraph 1, Section C, "Eligibility shall be determined in accordance with the standards established by public welfare programs in the state of residence." Consequently, eligibility for the surplus commodity program of the Navajo Tribe as a sub-distributing agency in Arizona must be in accordance with the standards which have been established in the plan of operation of the Arizona Department of Public Welfare, dated March 26, 1958.

The Tribal Division of Resources: This important Division of the Executive Branch of the Navajo Tribal Government is responsible for the administration and execution of a wide variety of programs established by the Tribal Council. The scope and magnitude of the work of this Division are reflected in the fact that about $8,449,278 was expended for resources work of various types in fiscal year 1961.

Among the important Departments of the Resources Division are the following:

(1) Agriculture and Livestock Department: Charged with the responsibility for carrying out dipping, dusting and vaccination programs sponsored by the Tribe for Navajo stockmen. In fiscal year 1962 a charge ranging from one cent to three cents per head will be charged by the Tribe for these services.

(2) The Shiprock Farm Training Program: In 1956, the Bureau of Indian Affairs completed the construction of a 1,200-acre irrigation project at the Hogback Unit, near the Helium Plant a few miles west of Shiprock, New Mexico. The possibility of construction of the major 110,000-acre Navajo Project loomed ever greater, and there was an urgent need to train

Livestock dipping and immunization programs are sponsored and carried out by the Navajo Tribe, financed in part from nominal charges paid by stockowners receiving benefits from the program.

Navajo farmers in the techniques of irrigation agriculture. As a result, in 1957, the Tribe appropriated $230,000 with which to launch a farm training program, utilizing the 1,200-acre project.

Fifteen Navajo families have graduated from this program to date, of which eight have been assigned 120-acre tracts of farmland, newly subjugated in the Shiprock area. At present, although the training period requires two years for completion, the training program remains ahead of the subjugation and irrigation construction programs.

(3) The Bar-N Ranch. This property was purchased by the Tribe in January 1957, and involves a 108,146-acre ranch composed of 98,506 acres of fee patent land and 9,644 acres of land leased from the state of Arizona. The property adjoins the Reservation, and is located about 15 miles south of Sanders, Arizona. It is operated under the supervision of a Manager hired by the Tribe.

The ranch was purchased to provide a central location for the tribally owned herd of breeding rams, and to provide additional land to which Navajo stockmen might move surplus livestock from the Reservation area.

During fiscal year 1961, twenty-four Navajo stockmen had 800 head of cattle on the property, for which they paid a fee to the Tribe.

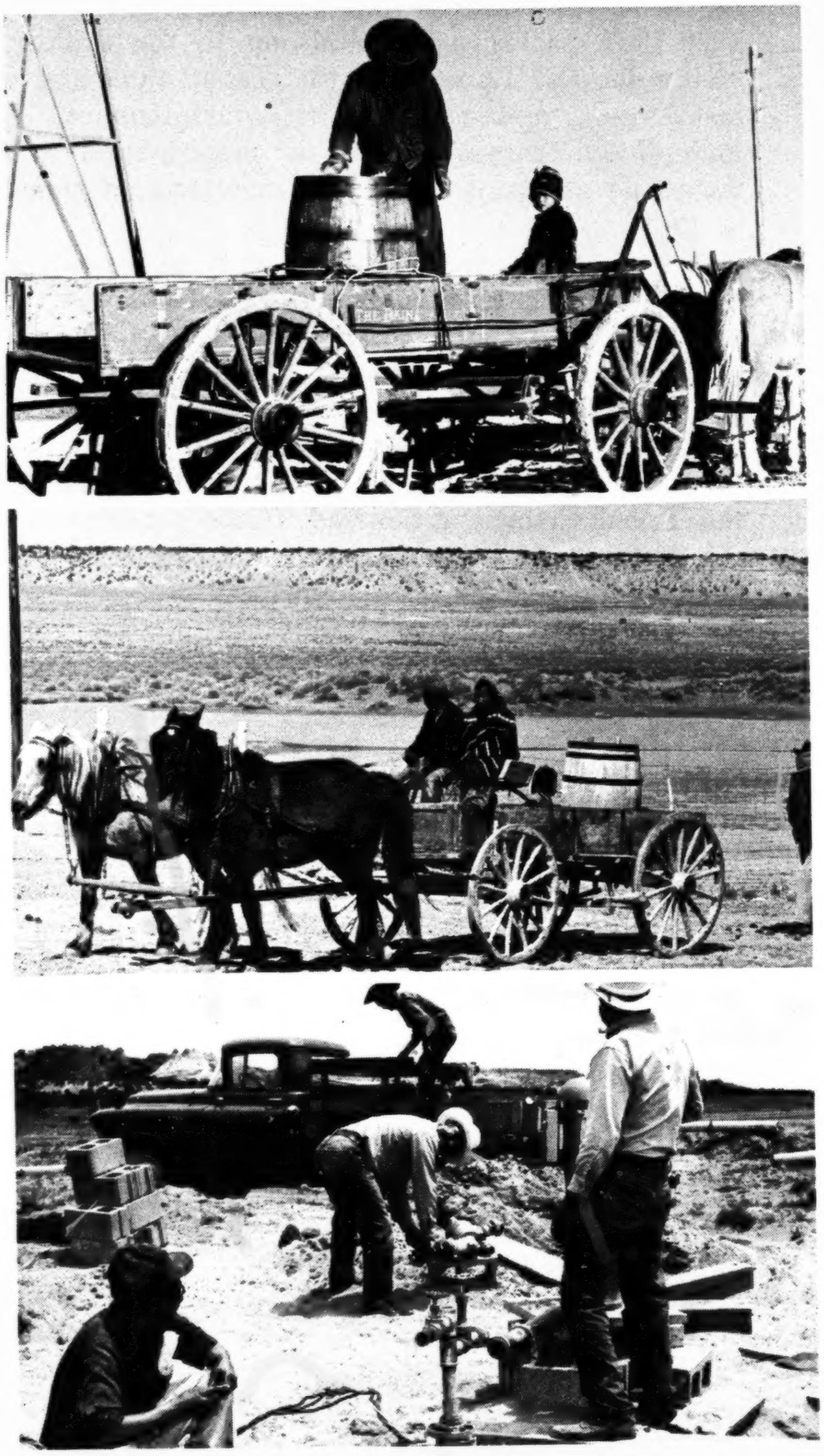
Another ranch, known as the Chaco Canyon Ranch, located north of Crownpoint, New Mexico, was also purchased by the Tribe in October, 1958.

(4) The Irrigation O & M Department: In 1957, the Navajo Tribe assumed the cost of operating and maintaining irrigation projects on the Reservation, and since that time the Tribal Budget has included annual appropriations for this purpose, reaching $222,241 in fiscal year 1961. The Congress has passed legislation authorizing the transfer of responsibility for operation and maintenance to the Tribe, and this transfer will be completed as soon as the Secretary of the Interior and the Chairman of the Tribal Council agree that Tribal personnel are qualified and trained to perform the work involved.

(5) The Tribal Enterprise Department: This office is responsible for the coordination and supervision of the existing Tribal Enterprises (the motels, the Arts Crafts Guild, the Window Rock Coalmine, etc.), and for the planning of new enterprises.

(6) The Tribal Mining Department: This Tribal Department was established on September 13, 1951, at a period when uranium mining activity was reaching its height in the Reservaton area. Staffed by trained mining engineers, it was the function of the Department to advise the Tribal government with regard to mining matters, and to protect tribal interests. Although uranium mining activity is ebbing in the Reservation area, other hard minerals, especially coal, have come to the forefront in recent years. Tribal income from this source, both direct from sales royalties and indirect from industrial development and payroll made possible by the use of coal to produce electricity, may well attain higher levels in future years than ever before.

(7) Ground Water Development: The growth of this Tribal program has been described under the section on Soil and Moisture Conservation in the present report. The Ground Water Development Department of the Tribe was created on February 15, 1957 in the form of a Council resolution authorizing a five year program designed to increase the supply of stock



The growing number of wells throughout the Reservation area provides a source of stock and domestic water closer to an ever increasing number of Reservation families - - - - (Center) And reduces the long distances over which domestic water once had to be hauled. (Lower) At the same time, a cooperative program involving the Tribe and the Public Health Service carries out a program designed to develop shallow wells and springs and create an additional supply of safe domestic water.

and domestic water throughout the Navajo Country. In accordance with this objective, a total of $4,599,120 has been appropriated during the period fiscal years 1958-1961, inclusive. In addition to the drilling of new wells, the Tribe bears the cost of tank and well installation, and that of well maintenance. The Federal Government ended its participation in the water development and well maintenance program in 1959.

(8) Forestry: Although supervision of forest resources to assure their use on a sustained yield basis is, by law, a responsibility of the Federal Government, the Navajo Tribe budgets funds annually for fire protection purposes. The cost, in fiscal year 1961 was $53,779.

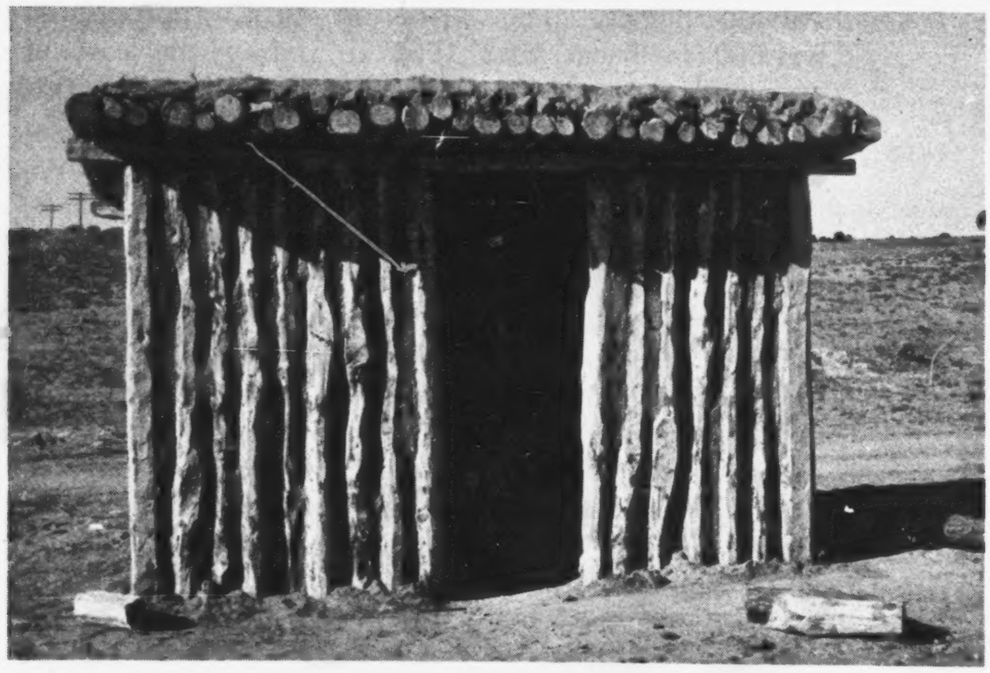
(9) Farm and Range Conservation: In February, 1954 the Tribal Council authorized Tribal participation in the Agricultural Conservation Program of the Department of Agriculture. Individuals and groups applying for assistance for the conduct of erosion control work, juniper eradication, stream bank protection and other projects must contribute necessary hand labor, and the Tribe matches funds contributed by the Bureau of Indian Affairs and ACP, amounting to $250,000 in calendar year 1962.

(10) Shallow Well and Spring Development: In an effort to develop all possible sources of stock and domestic water, the Tribe has appropriated funds during the past three fiscal years (1960-62, inclusive) for the development of shallow wells and springs. Initially this work was an aspect of the Tribal Public Works Program, but it was divorced from Public Works in 1961. Engineering designs and estimates are provided by the U. S. Public Health Service and, by February 1961, 228 projects had been completed. It is estimated by the Tribe that 3,000 such projects are capable of development in the Reservation area.

(11) The Tribal Public Works Program: To alleviate emergent economic conditions in the Reservation area the Tribe, on September 18, 1957, appropriated $1,000,000 to finance a program modeled after the federal public works program of depression years. In the fiscal year 1959, an appropriation of $3,000,000 was made for this purpose, rising to $5,000,000 in 1960. In 1961, $3,000,000 was again appropriated, although only $2,-

000,000 of this amount was advanced from the treasury. For fiscal year 1962, $1,000,000 was budgeted in addition to funds remaining unexpended at the end of fiscal year 1961.

Among the many useful projects completed by Tribal workmen under the Public Works Program are - - - -



Schoolchildren's bus shelters, such as this log structure located near St. Michaels.

A large variety of work projects have been carried out under the Public Works program, including stream bank protection; construction of corrals, dipping vats, tourist camp sites, irrigation structures, access roads and bridge repairs. About half the projects have involved structures of lasting benefit, while others, such as the elimination of noxious weeds, are more temporary in nature. The program has sometimes been in conflict with seasonal off-Reservation work, with welfare programs administered by the states, and to a minor extent with the schools, but generally it has been beneficial in terms of the contribution it has made to the individual economy of the Navajo people in the Reservation area.

(12) The Rural Water Storage Program: The storage of domestic water has long been a problem for the Navajo people. For many years water has been stored in barrels, many of which are not sufficiently air-tight to prevent the entry of foreign matter. Many of the gastroenteritic infections that have killed so many of the small children were traced to contaminated domestic water. As a preventive measure, and with funds available under PL 86-121, the U. S. Public Health Service purchased improved storage facilities, including plumbing fixtures and sink stands for use in rural Navajo homes. The Tribe, in turn, appropriated $41,600 in fiscal year 1961 to defray the cost of transporting and installing the fixtures, and this expenditure was returned to the Tribal treasury in the form of a charge of $20 per unit paid by recipients.

In addition to the programs described above, the Tribal Resources Division carries out a variety of other projects including the conduct of emergency feed grain programs to serve livestock in drouth stricken areas of the Navajo Country, an emergency hay purchase program, an emergency livestock purchase program, and other temporary activities (See section entitled Soil and Moisture Conservation).

The Navajo Tribal Utilities Authority also operates under the overall supervision of the Resources Division (See section on Industrial Development).

The Navajo Tribal Scholarship Program: Education, health and other major programs operated in the Navajo Country have long been affected by heavy annual personnel turnover. With the construction of educational facilities and the placement of emphasis on universal schooling for Navajo children, coupled with the growth of Tribal programs in the first half of the decade of the 1950's, the Tribal Council gave consideration to the advantages that might accrue to the Tribe through the operation of a Tribal scholarship program. Proponents of the idea argued that if Navajo young people could be educated at a college level to occupy positions as teachers, nurses and doctors in the Reservation schools and hospitals, and in other professional or sub-professional capacities in the Tribal organization, turnover might be decreased and more Navajo people would be enabled to take direct advantage of economic opportunities in the Navajo Country.

Accordingly, in fiscal year 1954 (Resolution No. CJ-21-53), the Council appropriated $30,000 with which to initiate the program. Initially, the maximum grant was placed at $1,200, but this "ceiling" was raised to $2000 per year to meet unusual requirements (medical, engineering, and other students) in fiscal year 1955 (Resolution No. CS-32-54).

In 1955, the Council appropriated $65,000 to support the scholarship program and this was subsequently increased to $100,000 in 1956, $115,000 in 1957, and $180,000 in 1958. In the latter year, $130,000 was designated for college grants, and $50,000 for vocational training grants.

A large amount of money had come to the Tribe in 1957 with the opening of the Four Corners Oil Field and, in February of that year, the Council adopted a resolution (CF-36-57) under the title *Tribal Development Program - Part I.* One part of the enactment in reference appropriated $5,000,000 as a scholarship trust fund. Actually, the fund has remained on deposit in the Treasury of the United States, in conjunction with the general fund of the Tribe, and the sum of $200,000 in annual interest was allocated to finance the scholarship program.

In June, 1959, arrangements were worked out with the Council to permit the use of $5,500 to defray the cost of a pre-college orientation program sponsored jointly by the Education Committee of the Tribal Council and Arizona State University at Tempe. A year later, $12,000 was appropriated to continue this program, and the University of New Mexico entered as a participant.

In November, 1959, the Tribal Council acted to add an additional $5,000,000 to the Scholarship Fund, bringing the total to $10,000,000 and assuring the sum of $400,000 to finance the program.

The following table summarizes the scholarship grant program during the period (school years) 1953-54 to 1960-61, inclusive:

SCHOOL YEAR	NUMBER OF GRANTS
1953-54	35
1954-55	83
1955-56	108
1956-57	109
1957-58	200
1958-59	179
1959-60	219
1960-61	361
TOTAL	1,294

Largely as a result of the scholarship program, there are presently (1961) about 130 Navajos who have earned college degrees, as well as a number of students who have completed non-degree courses of various types (accountancy, nursing, clerical, drafting, mechanical, etc.).

The program is administered by a Scholarship Committee established in conformity with the enabling resolution (CJ-21-53). The grant is not reimbursable, and any high school graduate with not less than ¼ degree Navajo blood is eligible for such assistance. Scholarships are renewable annually for undergraduate study, and for graduate study in specific cases, as long as the recipient can maintain a minimum of a "C" average in not less than 15 hours per semester. It is the intention of the Tribe that scholarship grants be adequate to cover all normal college expenses, to thus obviate the need for recipients to take part time employment. In view of the many hurdles Navajo young people must clear as a result of imperfect knowledge of the English language, cultural and other factors, it is the purpose of the Tribe to provide a maximum amount of security and free study time.

In the granting of scholarship awards, the Committee is guided by scores achieved in National College Aptitude Tests, the administration of which is required with respect to all potential candidates for college aid. These reflect the candidate's potential in contrast with national norms. In addition, the transcript of High School grades, the recommendations of teachers and counselors, and information derived from personal interviews are taken into consideration as criteria upon which the Committee may base its judgment.

In addition to high specific aptitude scores in those categories which bear a direct relationship to the professional or vocational objective of the candidate (numerical reasoning as it relates to engineering, for example), a minimum over-all percentile rating of 40 is required generally for applicants who plan to work toward a college degree; applicants achieving percentiles of 30 to 40 may be considered for non-degree courses at a college level; those with percentiles ranging from 20 to 30 may be considered for assistance to attend trade schools, and no grants may be made for candidates who achieve less than 20. For the more difficult curricula, — such as legal, medical, engineering — a minimum score of 60 to 90 is generally required.

It is indicative of the complex of problems faced by most Navajo high school graduates that, of 438 such persons who took college aptitude tests in the 1960-61 school year, only one fourth scored beyond an average percentile of 40, ranging as high as 88. The relative proportions in the several ranges are reflected below:

OVER-ALL PERCENTILE	PROPORTION IN EACH GROUP
1 to 19	24.9%
20 to 29	29.9
30 to 39	20.1
40 to 49	13.2
50 to 88	11.9

The median falls in the 20 to 29 percentile group with 29.9% of the total; 10 of the persons taking the test achieved in the range 60 to 67; and 6 achieved in the range 72 to 88.

It is obvious from the above data that Navajo high school graduates, in the 1960-61 school year, achieved at a level considerably below that established as a minimum level for scholarship assistance in the pursuit of professional training objectives. This fact, in turn, reflects certain factors affecting Navajo students which do not generally affect other segments of the population, including:

(1) Imperfect knowledge of the English language stemming from the fact that most Navajo children enter school without previous knowledge of the language of instruction. As pointed out in the section on Education, most such children remain retarded in terms of age-grade achievement throughout their school careers. Specially adapted techniques for the teaching of English as a foreign language to Navajo beginners are instru-

mental in minimizing this retardation through acceleration of the language learning process, and these techniques are being improved continuously.

(2) Under the conditions of life which prevail in most Reservation homes, and as an adjunct to life in the boarding schools, the habit of reading for pleasure is not formed by many Navajo schoolchildren. This fact is borne out in the course of interviews with scholarship applicants, and reflects in the acquisition of inadequate vocabulary on the part of many high school graduates necessary to enable them to read and understand texts written at a college level. Strengthened emphasis on the development of the habit of reading for pleasure, as well as the use of dictionaries and encyclopedias, during high school and pre-high school years, should materially alter the proportionate number of Navajo children reflected in the lower percentiles in the future.

(3) A variety of complex cultural factors — habits of thinking, values, etc. — also affect the aptitude level of present day Navajo high school graduates with respect to college. These will no doubt tend to "level off" as the acculturational process continues.

The scholarship program is an investment in the future of the Navajo people, and one which will gain in importance with each passing year. Likewise, it is a monument to the vision and wisdom of the members of the Navajo Tribal Council, many themselves uneducated, who created, sponsored and continue to support this effort. However, careful analysis of the program against the experience of the past 8 years might indicate a need to (1) Further raise the scholarship standards with reference to college applicants; (2) Provide for 5 years of undergraduate study, with a reduced workload; and (3) Place greater emphasis on vocational courses than on professional degree studies for the present.

The Navajo Tribal Legal Department: In 1946, Congress created the Indian Claims Commission and authorized Indian Tribes to sue the Federal Government for losses allegedly sustained by such Tribes in past decades. In July 1947, the Navajo Tribal Council acted to employ an attorney, in the person of Norman M. Littell, of Washington, D.C. (and associates) to function in the dual capacity of Claims Attorney and General Counsel. The necessary contract was approved on August 8, 1947, and specified a period of ten years.

With the increased mining activity that characterized the Reservation area during the first half of the past decade, there developed an urgent need for legal counsel at Tribal headquarters and, on August 21, 1951, the Council acted to employ a local attorney, functioning under the General Counsel contract and under the direction of Mr. Littell, to advise the Tribe with regard to mining leases and allied matters of Tribal business.

Subsequently, as the volume of Tribal business has increased, especially after the opening of the new Reservation oil fields in 1956-57, it has been necessary to add attorneys to the Tribal legal staff, bringing the total such personnel to seven in the fiscal year 1961, exclusive of the two attorneys assigned to the Tribal Legal Aid staff.

Across the years, since 1947, the Tribal Legal Department has played an important role in shaping the course of Tribal affairs. Protection of water rights; the conduct of negotiations with Federal and State agencies, as well as with private companies, to secure maximum benefits for the Tribe; the establishment and defense of the principle of Tribal autonomy within the exterior boundaries of the Reservation, and many other services are associated with the Legal Department.

The McCracken Mesa land exchange, involving about 53,000 acres of Reservation land relinquished by the Tribe as the site of Glen Canyon Dam and Powell Lake for an equal acreage in southern Utah; the determination of ownership of oil-rich riverbed areas in that portion of the San Juan River passing through the Navajo Reservation; the negotiation of leases and rights-of-way with the Arizona Public Service Company, including provisions for the purchase of wholesale power by the Tribe for industrial and domestic use; similar negotiations with the Bureau of Reclamation in connection with power to be generated at Glen Canyon Dam; the Navajo-Hopi Boundary case; the Navajo Tribal Claims Case; the quieting of title to areas of school land in the oil producing region of the Reservation in Utah; determination of the validity of alleged mining claims in the McCracken Mesa exchange area; the case of *Williams* v. *Lee* in the Supreme Court of the United States (See the section entitled the Origin and Growth of Navajo Tribal Government), and many other matters of primary importance to the Tribe have been resolved or handled to the benefit of the latter by the Legal Department, often in conjunction with Tribal consultants, or with other departments of the Tribal organization (e.g. the Departments of Land Use and Surveys, Mining, Oil and Gas, etc.).

At the Reservation level, Assistant General Counsel Joseph F. McPherson supervises the headquarters legal staff.

The Navajo Tribal Legal Aid Department: The General Counsel staff is concerned primarily with matters of *Tribal* interest in contradistinction to cases involving the interests of individual members of the Tribe. As contacts between the Navajo and non-Navajo communities increased, and as Navajo workers entered an ever broadening field of employment after 1950, the need for legal advice grew apace. To meet the demand for service of this type the Tribal Council, on February 26, 1954, employed an attorney to function independently of the General Counsel in the capacity of Legal Advisor. The office remained a separate function until October 1958, at which time it was reorganized as a Tribal Legal Aid Department, and personnel was subsequently increased to permit expanded services including scheduled visits to the Subagencies where local people could have access to legal aid without the necessity to travel to Tribal headquarters.

The Legal Aid Department, since its reorganization in 1958, functions under the general supervision of the Assistant General Counsel at Window Rock, and is an aspect of the Tribal Legal Department. It has been instrumental in assisting a large number of individual Navajos to protect their interest, recover damages, and obtain benefits under the Social Security Law or in other contexts which would not have been obtained otherwise in a majority of such cases.

THE NAVAJO COUNTRY

The following description of the geography, soil, climate and vegetation of the Navajo country is adapted from an excellent report compiled in 1941 by Mr. Paul Phillips of the Navajo Agency, and entitled "General Statement of Conditions in the Navajo Area."

PHYSIOGRAPHY: The Navajo Area includes all of the Navajo and Hopi Indian Reservations (totaling 15,087,163 acres or 23,574 square miles) within the present legally described boundaries. The area straddles almost the entire length of the divide separating the watersheds of two of the Colorado River's most important tributaries—the San Juan and the Little Colorado—and extends northward from this divide across the flood plain of the San Juan between Fruitland, New Mexico, and Montezuma Creek below Aneth, Utah, and southward across the flood plain of the Little Colorado at Leupp, Arizona. The divide between these two systems describes a tortuous course running diagonally across the area in a northwesterly direction from the southeast corner, beginning at a point about 40 miles from the Continental Divide, and splitting north of Tuba City to cut off a series of smaller watersheds draining directly into the Colorado River. Approximately 6,561,000 acres (44%) drain into the San Juan; 7,375,500 acres (49%) drain into the Little Colorado, and 1,150,600 acres (7%) drain directly into the Colorado River. The area includes about two fifths each of the San Juan and Little Colorado River systems which, together with the Virgin River, drain about 65,000 square miles and, while contributing only 10% of the water of the Colorado, produce 75% of the silt. The Navajo constitutes 36% of this critical area and, therefore, occupies the most important western watershed position.

The surface of the Navajo area includes four principal features: 1. The flat alluvial valleys at elevations from 4,500 to 6,000 feet; 2. The broad, rolling upland plains between 5,500 and 7,000 feet; 3. The mesas located at elevations of 6,000 to 8,000 feet; and 4. The mountains ranging from 7,500 to over 10,000 feet in altitude. Each of these four major types is cut by canyons of a few hundred feet to more than 2,000 feet in depth and is broken by prominences rising as high as 1,500 to 2,000 feet. Most of the Navajo-Hopi area lies between elevations of 5,000 and 7,000 feet.

There are three outstanding highland provinces, namely the combined Chuska-Carrizo Mountain range, the Black Mesa, and Navajo Mountain.

The combined Chuska-Carrizo chain forms a long range extending across the eastern portion of the reservation in a north by north-westerly direction. The tops of these mountains are alternately broken, with flat plateaus situated at altitudes of 8,000 to 8,800 feet, from which ridges and buttes rise still higher to elevations up to 9,500 feet. Along the eastern slope of the Chuskas between 7,300 and 7,800 feet lies a narrow level bench below which is a rough and severely dissected slope extending downward to the plains below. The bench becomes more broken at the southern extremity and continues around to the north and west of Mexican Springs, somewhat narrowed, to break away southward in the form of rough wooded hills. To the east these hills meet a high plateau known as Mesa de Los Lobos. The slope is made up of a series of exposed strata of sandstone, conglomerate, shale and igneous rock from which springs, fed principally by snow water deposited in mountain lakes, break forth.

Black Mesa is an island prominence about 250 miles in circumference located almost exactly in the center of the Navajo-Hopi area. The northern and eastern escarpments are precipitous cliffs rising 2,000 feet above the plain, from which the mesa top slopes gradually away to the southwest. Streams draining the mesa reach almost to the very edge of the escarpments, heading in an extremely rough and broken country with steep slopes and narrow canyons. The main drainages flow between southwesterly aligned ridges and mesas, dissected by numerous canyons and small side valleys, which break up further to the south and southwest, the ridges ending in finger-like projections. Three of the latter are the first, second and third mesas of the Hopi country.

Navajo Mountain, located in the extreme northwestern portion of the reservation, is the third most important prominence. It is a lone peak rising 5,000 feet above the surrounding plains to an elevation of 10,416 feet, the highest point of the Navajo area. In this portion of the reservation, broad, rolling, broken plateaus extend from the Echo Cliffs in a curving northeasterly direction around Black Mesa and across Chinle Valley. Paralleling this belt on the north is another wide strip of country, extremely rugged and barren, with high broken mesas and deep canyons; probably the most inaccessable part of the entire reservation, it extends from Echo Cliffs to Chinle Wash. Because of the excessive drainage due to numerous falls and deep canyons, it is practically impossible to obtain water in this area by drilling wells. There is a number of springs along the cliffs and in the heads of the canyons.

CLIMATE: It is well known that in mountainous country climate is determined largely by elevation and topography, factors which partially subdue the influence of latitude. Increased humidity at high altitudes may bring about the development of transitional-zone plant associations, while air drainage, sub-irrigation, and northern exposure may produce similar associations in the heads of canyons 3,000 or 4,000 feet lower down.

There are three distinct climates within the Navajo area: 1. The cold humid climate of high altitudes, including the upper elevations of the Chuska and Carrizo Mountains, the Fort Defiance Plateau, a strip along the northern and eastern escarpments and the highest ridges of Black Mesa, the top of Navajo Mountain, and several small areas located in the heads of some of the canyons in the Tsegi country and northwestern part of the reservation; 2. The intermediate steppe climate of the mesas and high plains, including belts along mountains, foothills, the high portions of the Chaco and Chinle plains, Black Creek Valley, a large part of Black and Balakai Mesas and adjacent mesas of similar elevations, and the areas of the vicinity of Inscription House, the plateaus above the Tsegi canyons, Piute Mesa, Mormon Ridges, and Preston Mesa; and (3) the comparatively warm desert, including the lower portions of the Chaco and Chinle valleys and all the southern, western, and northwestern parts of the reservation. Of the entire area of 23,574 square miles, 1,760 square miles (8%) is classed as humid; 8,748 square miles (37%) as steppe, and 13,066 square miles (55%) as desert.

The three climates, though markedly different and distinct in many respects, are not separated by fixed or sharply drawn lines except where divided by wide differences in elevation. Desert merges into steppe and steppe into humid, with certain characteristics, such as wide daily, monthly, and yearly fluctuations in temperature, high evaporation rates, periodic high winds, wet and dry seasons, and intense local storms, common to all three.

The Humid Zone: The average annual temperature of the humid zone ranges from 43 to 50 degrees Fahrenheit. Winters are continuously cold during the months of December, January, and February, with average minimum temperatures varying from 4 to 15 degrees. Minimum temperatures may reach 25 degrees below zero. The average maximum temperatures during June, July and August, the hottest months, are between 70 and 80 degrees, with the highest temperature on record at 99 degrees.

Total annual rainfall averages between 16 and 27 inches, the high averages being reached only at the highest elevations. There are two distinct periods of precipitation, the winter period (December, January, February and March), when 42 per cent of the total annual precipitation generally falls, and the summer period (July, August, and September), when 32 per cent generally falls. Between these two periods there are the early summer dry period of April, May and June and the fall dry period of October and November.

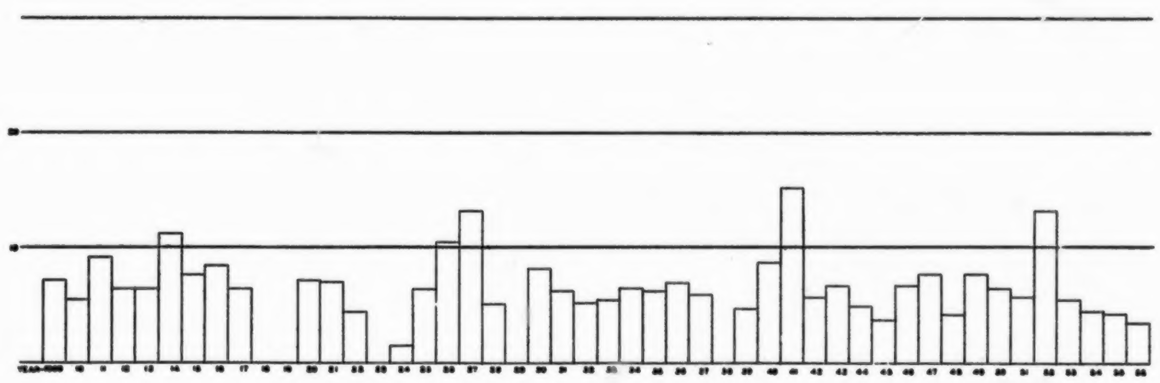
Snow accounts for 41 percent of the total precipitation, with December, January, February and March as the months of heaviest snowfall. The total annual fall usually exceeds 90 inches, with deposits often reaching 4 or 5 feet in depth on the level and 30 feet when drifted. Run-off from melting snows takes place principally during April and May, at which time the seasonal mountain streams flow at maximum sustained rates.

The Steppe Zone: About one fifth of the Navajo area falls within the steppe zone. This zone is intermediate between the humid above and the desert below, with moderate summers and frequently severe winters. The average annual temperature ranges from 45 to 50 degrees with an average minimum monthly temperature during the winter of 10 to 25 degrees, and an average maximum during the summer of 80 to 88 degrees .The coldest temperatures, as low as 25 to 30 degrees below zero, occur during December, January, and February; the highest temperatures, which may exceed one hundred degrees, occur during June, July and August.

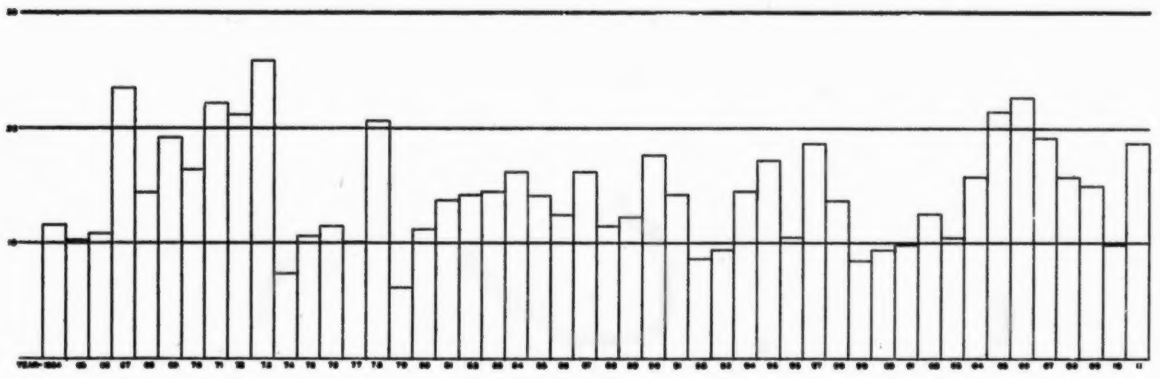
Annual rainfall normally averages 12 to 16 inches. There is one outstanding season of precipitation which occurs in July, August and September when 43 per cent of the total annual precipitation falls. There are two more or less definite periods of drought, in May and June and in October and November.

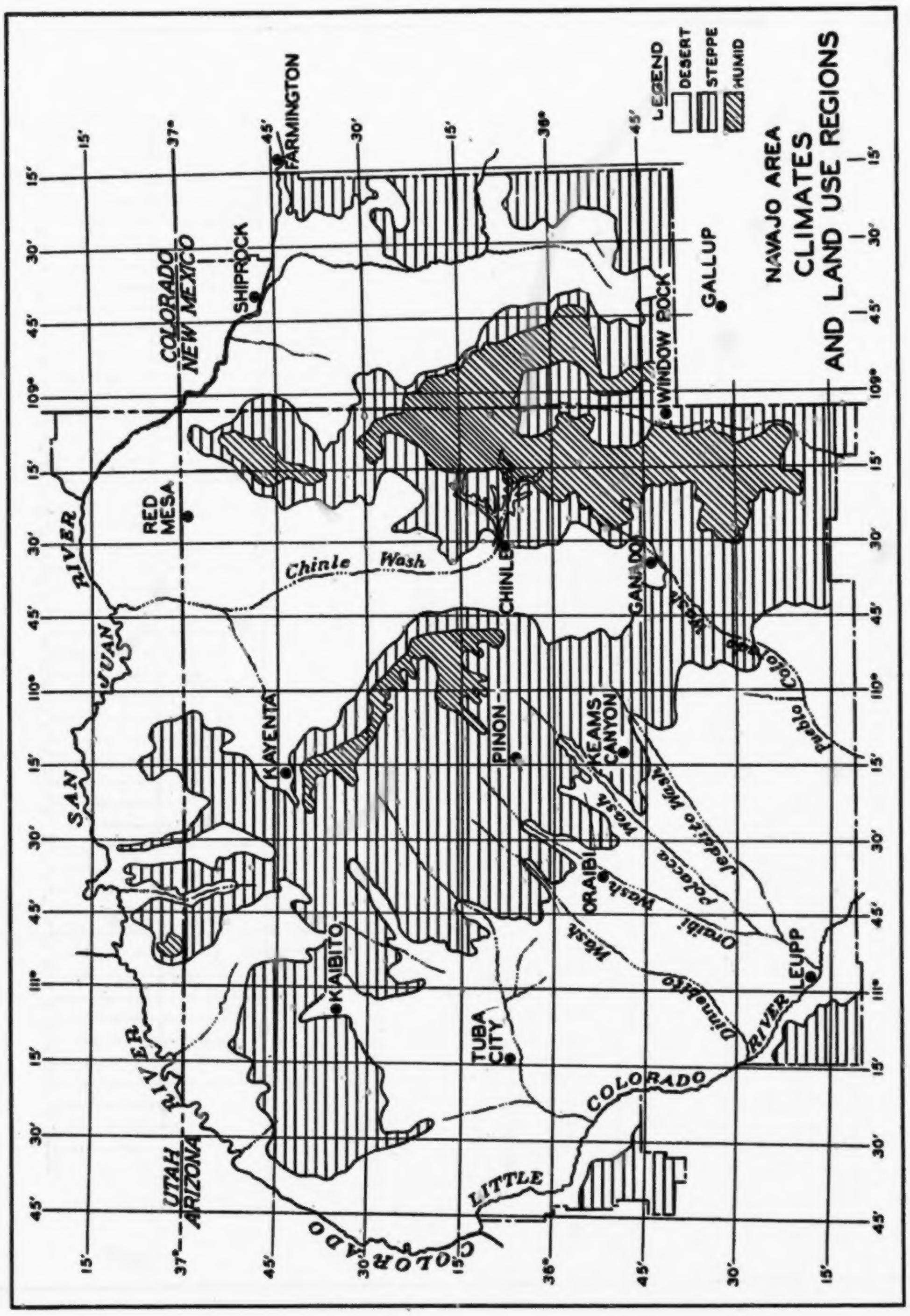
Within the steppe zone one-fourth of the precipitation falls as snow, the fall usually averaging about 30 inches per season. Deposition often reaches 2 or 3 feet, and high winds may drift snow to depths of 8 or 10 feet. December, January, February and March are the months of heaviest snowfall. Usually by late March most of the snow has melted and resulting run-off has subsided; streams originating within this zone are dry washes most of the year and flow steadily only two or three weeks in early spring.

COMPARATIVE ANNUAL PRECIPITATION
TUBA CITY STATION. YEARS 1909-1956



COMPARATIVE ANNUAL PRECIPITATION
FORT WINGATE STATION. YEARS 1864-1911




NAVAJO AREA
CLIMATES
AND LAND USE REGIONS
LEGEND
DESERT
STEPPE
HUMID
FARMINGTON
SHIPROCK
COLORADO
NEW MEXICO
UTAH
ARIZONA
GALLUP
WINDOW ROCK
RED MESA
Chinle Wash
CHINLE
GANADO
KAYENTA
PINON
KEAMS CANYON
ORAIBI
KAIBITO
TUBA CITY
LEUPP
SAN JUAN RIVER
COLORADO RIVER
LITTLE COLORADO RIVER
Pueblo Colorado Wash
Jeddito Wash
Polacca Wash
Oraibi Wash
Dinnebito Wash
Wash
37°
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109°
110°
111°
15'
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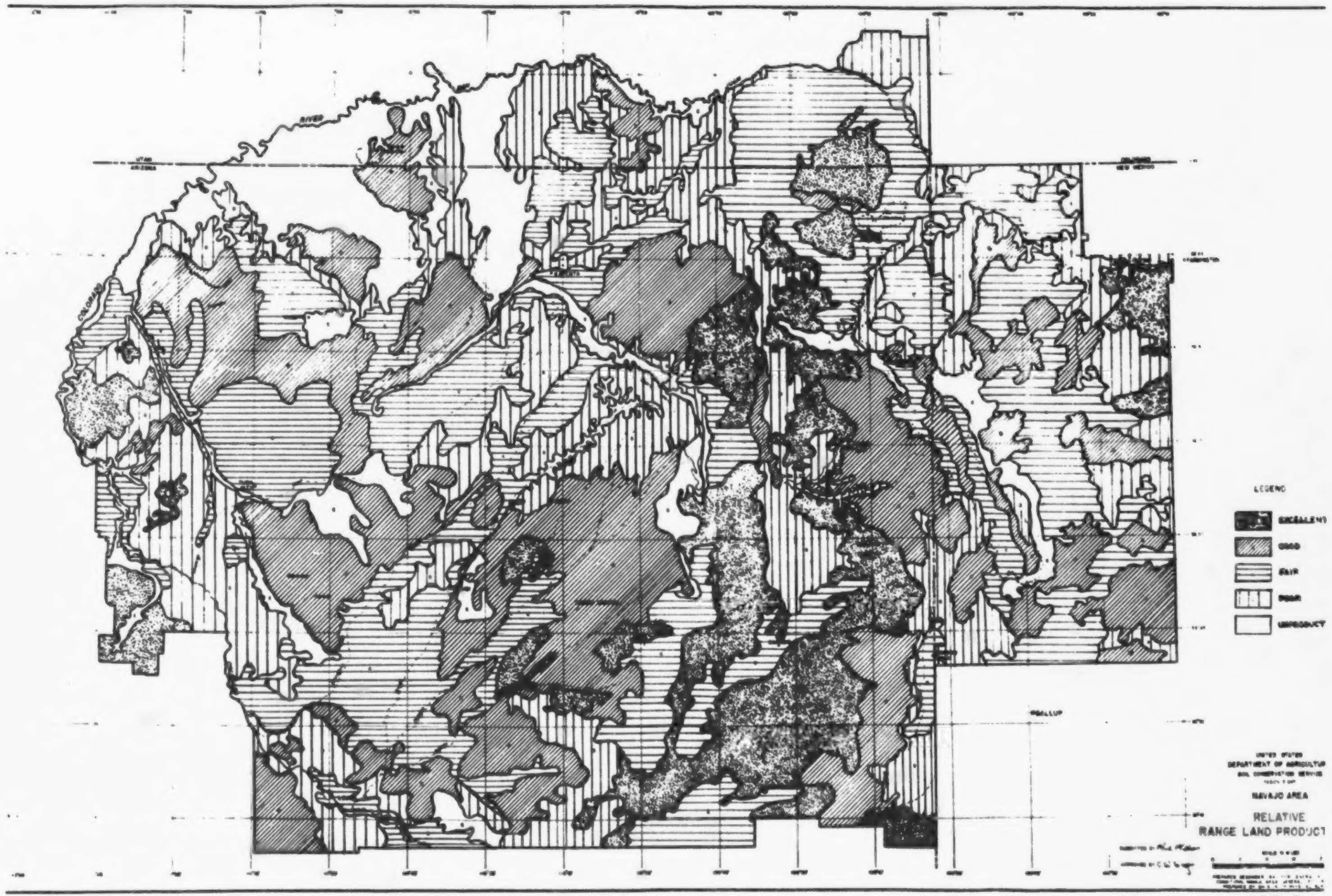

LEGEND
EXCELLENT
GOOD
FAIR
POOR
UNPRODUCT
UNITED STATES
DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
NAVAJO AREA
RELATIVE
RANGE LAND PRODUCT
UTAH
ARIZONA
COLORADO
NEW MEXICO
RIVER
GALLUP

MAP 6

The Desert Zone: About three-fourths of the Navajo area is classed as desert. The average annual temperature is 50 to 60 degrees with a relatively long warm season extending through April, May, June, July, August, September and even into October and November. In mid-summer maximum temperatures may reach 110 degrees or more, and average maximum monthly temperatures in some localities may reach 100 degrees. December, January, and February are the coldest months with minimum temperatures averaging 11 to 30 degrees above zero, but temperatures as low as 20 and 30 degrees below zero have been recorded.

Total annual rainfall normally averages between 7 and 11 inches, but wide variations are the rule with figures registered as low as 1.5 inches and as high as 16 inches. The wettest season occurs during July, August, and September, when 41 per cent of the total annual precipitation falls. Snowfall accounts for a comparatively small portion of the moisture supply, and low reaches of this zone often do not have more than a few flurries. The snow that does fall usually comes during December, January, and February, the period from March to November being almost completely free from snow.

The average annual total of days which have measurable precipitation is less than 50, most of which occur during July and August.

Records for the desert zone show an average growing season of 173 days extending between approximate dates of April 25 and October 15; the growing season within the steppe belt averages approximately 147 days, extending from about May 14 to October 9; and the growing season within the area of humid climate averages 95 days, extending from about June 12 to September 15.

The humid zone is often snow-bound from December to April each year, and the Indian inhabitants migrate to lower elevations.

Within the desert and steppe climates, most of the rainfall occurs as summer downpours of high intensity and short duration. Like the southwest generally, the Navajo area is a sunny country, the percentage of clear days averaging about 80 per cent of the total. High winds and sandstorms occur during the late spring and early summer months.

The high rate of evaporation is one of the most important causes for the loss of water in the Navajo country, particularly from the surfaces of reservoirs and lakes exposed to wind movement and bright sunshine. The removal of 5 to 7 feet annually from even a comparatively small reservoir means the loss of several acre feet of precious water. High winds of 38 to 46 miles per hour have been recorded. Dust devils or large whirlwinds caused by convection air currents resulting from the heating and movement upward of masses of air near the ground surface, are common in Navajoland during the summer months.

SOILS: Soils of the Navajo-Hopi area are used almost universally for the production of livestock forage. They have been evaluated by determination of certain important ecological characteristics, such as soil permeability and water-holding capacity, zone of water retention, slope, erosion, alkali, drainage, and type of vegetation, and classified into five divisions as **excellent, good, fair, poor** and **unproductive.**

Excellent Soils: Soils of this type absorb most of the average precipitation and do not produce any considerable run-off, except during maximum storms. Highly palatable grasses, principally blue grama and galleta usually are produced in pure stands or with scattered associated shrubs. Generally, erosion is not serious and will not become so unless the land is subjected to extended periods of overgrazing. Excellent soils cover an estimated 1,663,800 acres, or only 11 per cent of the Navajo area. They are most extensive in the south central part, but smaller, isolated areas are found in the extreme northeast on the plains north of Carrizo Mountain, on Second Mesa, in the Padre Canyon country, on Grey Mountain, and in the area west of Cedar Ridge.

Good Soils: Soils of this type are slightly more susceptible to erosion, and the rate of moisture penetration is equivalent to that of excellent soil or is sometimes more rapid because of the extremely sandy surface layers. Good soils are found generally over the reservation, in an area totaling about 3,500,000 acres, or 22 per cent of the Navajo-Hopi area.

Fair Soils: Soils of this type are the most extensive in the Navajo-Hopi area, and total almost 4,400,000 acres, or 29 per cent.

Poor Soils: Soils of this type occupy almost 3,400,000 acres, or 23 per cent, of the entire Navajo-Hopi reservation area.

Unproductive Soils: Soils of this type occupy about 2,205,000 acres, or 15 per cent of the reservation area, including principally the rough broken strip of country bordering the San Juan and Colorado Rivers in the northern and northwestern part, and extending southward west of Echo Cliff and along the Little Colorado Valley, the northern and eastern escarpments of Black Mesa, some of the eastern escarpments of the Lukachukai Mountains, the painted desert formations, and the badlands. Land of this class has essentially no grazing value. A large percentage of the precipation escapes as run-off and carries away large quantities of silt. Vegetative cover is sparse or absent.

VEGETATION: Ten general types of vegetation occur over the Navajo-Hopi reservation area: grassland, meadow, weeds, sagebrush, browse (shrub), timber, inaccessible and barren, woodland, and aspen. These types, which actually merge in various combinations, are determined by climate, relief, soil, and other environmental factors, and the vigor and productivity of the component plants are functions of environment.

Grassland occurs typically on residual and outwash soils of rolling plains and mesas at the middle elevations. This type includes bunchgrass areas, grama areas, and other open grassland, not meadow in character, where grasses predominate. Weeds or browse, or both frequently occur in mixtures with the grasses.

On the reservation, meadows are found only within the most humid climate on the higher reaches of the Chuska Mountains, occurring as open parks associated with yellow pine, spruce-fir, and aspen. Growth form, densities, and forage production are similar to grasslands.

Weeds or weedlands include all untimbered areas where perennial weeds predominate over other classes of vegetation. A very common weed in the reservation area, which often makes its appearance following overgrazing, is the Russian thistle.

Sagebrush is one of the more common shrubs in the Navajo area, covering some 780,000 acres or 5.2 per cent of the area. It will supply forage for a total of about 55,000 sheep units yearlong.

Chamise and greasewood occur on undeveloped alluvial soils along most of the large drainages and their tributaries within the desert and steppe climates.

Coniferous timber is adapted to the more humid portions of the area at elevations generally above 7,500 feet, except where local topography, exposure, evaporation, and sub-irrigation result in favorable micro-climates. Heavy coniferous stands often do not include an understory of forage plants and, therefore, are of little use for grazing although such stands furnish excellent soil and watershed protection. Coniferous timber occupies about 6 per cent of the Navajo area (540,000 acres) and supplies forage for about 22,000 sheep units yearlong. Commercial timber constitutes a highly valuable resource.

Over 1,000,000 acres (7%) of the Navajo area is wasteland, principally because of its inaccessibility. In addition, about 665,000 acres are designated as barren, and are typified by the painted desert area, bare rock regions and other badlands.

AGRICULTURE: Farming opportunities in the Navajo area depend principally upon soil slope and on water availability. The most extensive dry farm agricultural area lies within the humid belt, where agricultural soils typical of this zone are highly productive. Crops which can be profitably produced under careful management include oats and other small grains, alfalfa and sweet clover, corn, potatoes, turnips, carrots, cabbage and other cool season vegetables, and grasses for pasture and hay.

The next most favorable dry farm agricultural area falls within the steppe climatic zone, particularly the part immediately below the humid one where rainfall averages between 12 and 16 inches. The soils in this area are of medium productivity, but because of greater acreage the total yield from dry farm and flood irrigated crops grown probably exceeds all other portions of the reservation combined. Adaptable crops include winter and spring small grains, corn, melons, squashes, beans, potatoes, turnips, and other vegetables. There is more opportunity for diversification within this one than in the other two except on irrigated land.

Principally because of lack of sufficient moisture, the remainder of the reservation is generally unfavorable for the growth of farm agricultural crops.

There are about 44,500 acres of agricultural land now under cultivation on the Navajo reservation, and present estimates indicate that there are perhaps 175,000 acres possible with expansion of agricultural land.

MINERALS: The metallic minerals include gold, silver, copper, and uranium-vanadium.

Copper is known to exist at several locations on the Navajo reservation, and small amounts occur in the Carrizo Mountains.

Carmotite, a uranium-vanadium mineral, occurs throughout southwestern Colorado, southeastern Utah, and at certain localities in northeastern Arizona. On the reservation it occurs in various locations, principally in the Monument Valley and in the Carrizo Mountains.

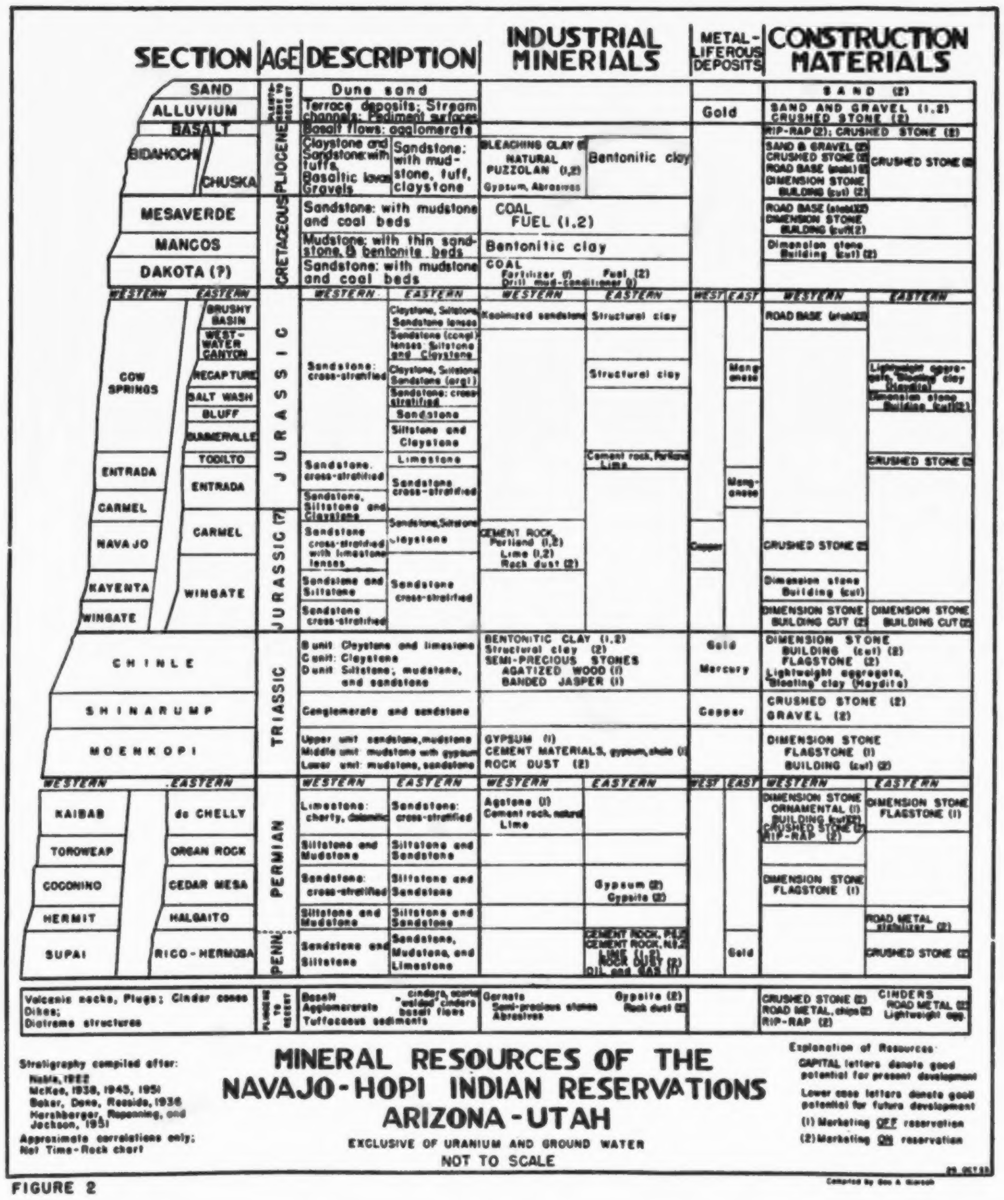
Minerals known to exist on the reservation include bentonite, asphalt rock, building stone, clays, gypsum, lime and alum, as well as peridot, garnet and agatized wood.

The distribution of coal in the Navajo country is practically co-existensive with that of the strata of Upper Cretaceous age. In general, it may be said that two fields are distinguishable, the Black Mesa coal field of Arizona, and the Gallup-Durango field of New Mexico and Colorado.

Oil and gas were developed in the northern part of the Navajo area as early as 1907, at which time a well was drilled in the Monument Valley area across the river from Mexican Hat, Utah. Subsequently, a number of wells have been developed.

THE NAVAJO PEOPLE

In an effort to provide a small amount of general information relative to traditional Navajo life and culture, we include herewith a few brief comments in regard to housing, social and political organization, dress, religion, etc. The generalizations are too brief and too vague to have any signification aside from providing a minimal quantity of background information to the reader who has had no previous experience with the Navajo Tribe and, we hope, providing a stimulus to seek more detailed information through some of the published material listed in the bibliography.


SECTION
AGE
DESCRIPTION
INDUSTRIAL MINERIALS
METAL-LIFEROUS DEPOSITS
CONSTRUCTION MATERIALS
SAND
ALLUVIUM
BASALT
BIDAHOCHI
CHUSKA
MESAVERDE
MANCOS
DAKOTA (?)
PLIOCENE
CRETACEOUS
JURASSIC
JURASSIC (?)
TRIASSIC
PERMIAN
PENN.
COW SPRINGS
BRUSHY BASIN
WESTWATER CANYON
RECAPTURE
SALT WASH
BLUFF
SUMMERVILLE
TODILTO
ENTRADA
CARMEL
NAVAJO
KAYENTA
WINGATE
CHINLE
SHINARUMP
MOENKOPI
KAIBAB
de CHELLY
TOROWEAP
ORGAN ROCK
COCONINO
CEDAR MESA
HERMIT
HALGAITO
SUPAI
RICO-HERMOSA
WESTERN
EASTERN
Dune sand
Gold
Copper
Mercury
Mang-anese
SAND (2)
SAND AND GRAVEL (1,2)
CRUSHED STONE (2)
COAL FUEL (1,2)
Bentonitic clay
DIMENSION STONE BUILDING CUT (2)
CRUSHED STONE (2)
Volcanic necks, Plugs; Cinder cones
Dikes;
Diatreme structures
Basalt
Agglomerate
Tuffaceous sediments
Garnets
Semi-precious stones
Abrasives
Gypsite (2)
Rock dust (2)
CRUSHED STONE (2)
ROAD METAL, chips (2)
RIP-RAP (2)
CINDERS
ROAD METAL (2)
Lightweight agg.

Stratigraphy compiled after:
Noble, 1922
McKee, 1938, 1945, 1951
Baker, Dane, Reeside, 1936
Harshbarger, Repenning, and Jackson, 1951
Approximate correlations only;
Not Time-Rock chart

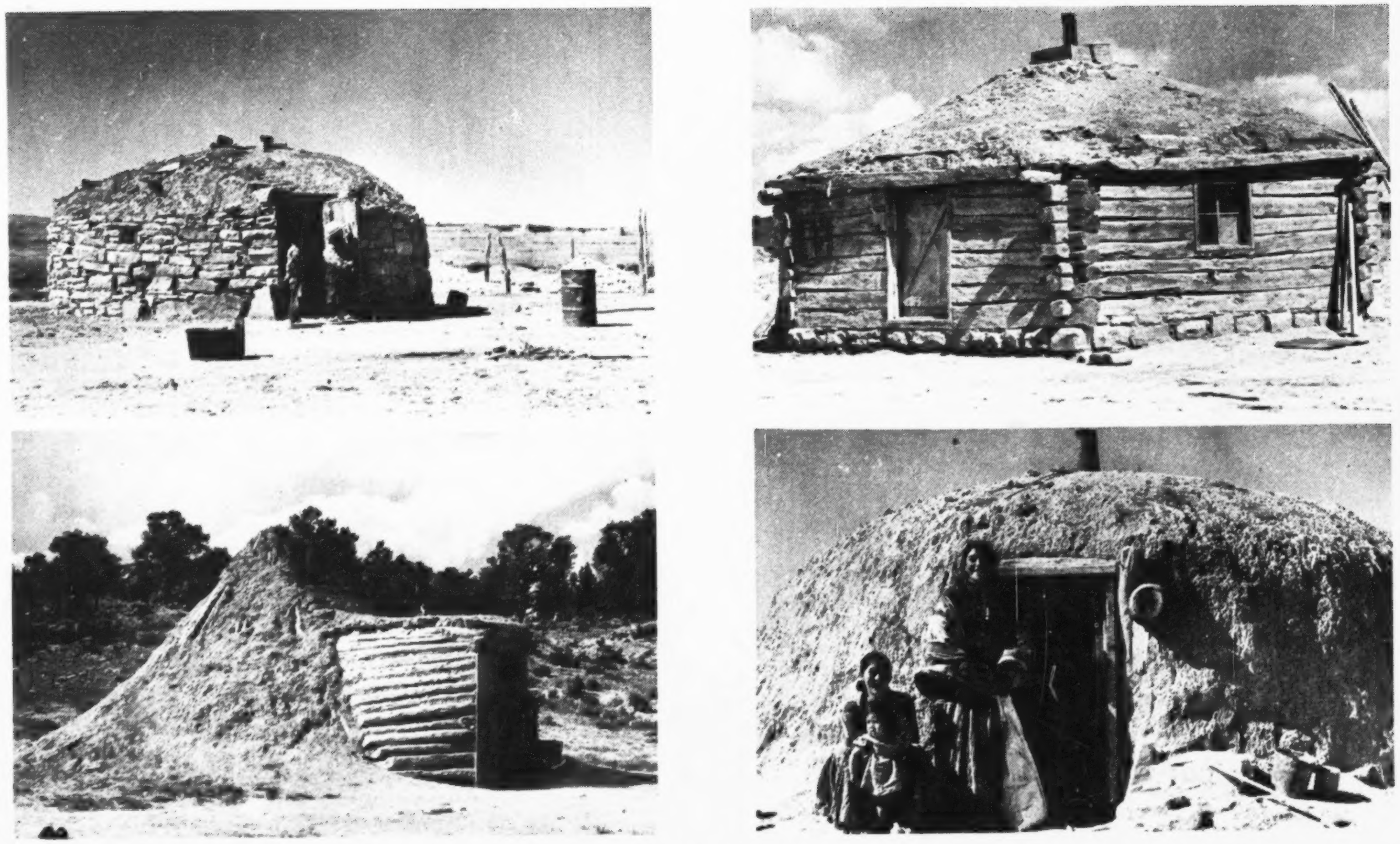
MINERAL RESOURCES OF THE
NAVAJO-HOPI INDIAN RESERVATIONS
ARIZONA-UTAH
EXCLUSIVE OF URANIUM AND GROUND WATER
NOT TO SCALE

Explanation of Resources:
CAPITAL letters denote good potential for present development
Lower case letters denote good potential for future development
(1) Marketing OFF reservation
(2) Marketing ON reservation

FIGURE 2

HOUSING: The traditional Navajo abode is called a hogan. The hogan is most commonly a circular (hemispherical or conical) structure, with a doorway facing east and a smoke hole in the center of the roof, but lacking windows. The wall is usually of logs, mud or rocks, depending on the availability of one or the other building material, and the hemispherical roof is formed of cribbed logs covered with dirt. The fire is placed on the hard packed dirt floor beneath the smoke hole, and a flap or hinged door covers the doorway. The occupants sleep on sheepskins, lying with their feet to the fire and their heads to the wall. Nowadays many hogans have windows, stoves, chimneys, beds, etc., and, in fact an ever increasing number of Navajos live in houses made of logs, stone, lumber, building blocks, etc.

A small structure, conical in shape, made of upright poles and covered with earth, is used as a sudatory or sweat bath, largely by males. It is heated by placing hot stones within, and provides bath facilities in this area of scarce water.



(Lower Left) The traditional forked stick hogan. (Lower Right) A typical, old style earth covered hogan. (Upper Left) A typical rock hogan. (Upper Right) A typical cribbed log hogan.

SOCIAL ORGANIZATION: The term "family" is considerably broader in its application to Navajo society than the biological unit including merely the father, mother and offspring, although the biological family is the basic unit of social organization. Traditionally, when a Navajo man marries he goes to make his home with his wife's relatives, and his biological family becomes one of several such units which live in a group of adjacent hogans, and which are referred to as an extended family. The extended family may include husbands and offspring of the wife's sisters, the parents of one's wife, grandparents, aunts, uncles or other relatives of either spouse, and there may be as many as 20-25 persons included within the group. The members help one another and collaborate in providing a livelihood, and cooperate in connection with birth, death, marriage, sickness, minor ceremonials, etc. Direction is usually given to the cooperative activities of the group by the male member who has the greatest prestige or highest status—the one to whom the group normally looks for leadership.

Within the biological family the woman is in full charge of caring for the offspring, cooking, butchering, caring for the food, and is responsible for discharging all other domestic duties connected with the home. The man hauls wood and water, builds the hogan and corral, provides food, does the heavier work of farming, etc., although the women and children commonly assist in the fields, especially at planting and harvesting times, and help with shearing, lambing, etc. Herding of the sheep usually falls to the children.

The children play a very active role in the economic activities of the family, and are given minor tasks to perform at a very early age. As they grow up they are trained in the care of livestock, in farming and in other aspects of gaining a livelihood, as well as in ethics and tradition, and as they grow they begin to acquire property. The process of transferring livestock and farm land to the children continues until, by the time the parents are advanced in years most such property is in the hands of their offspring, especially their daughters and the latter's husbands. Thus a woman's property normally descends, not to her husband, but to her children. The husband is the guardian of such property, but not the possessor of it.

Sheep or farmland are generally the property of individual members of the family, and may be given away, sold or transferred by the owner under certain conditions, but the proceeds from such property are usually used by the entire group.

The extended family group, made up of two or more biological families, is a very important aspect of Navajo social organization. It is a cooperating unit, closely bound together by ties of marriage and close relationship, possessing responsible leadership, and identified with specific areas of land use for grazing or other agricultural purposes.

Nowadays the husband often leaves his family for seasonal work on the railroad or in the mines, or a portion of the family group, including men, women and children, may spend several months of the year in the cotton fields and truck gardens of southern Arizona, or the sugarbeet fields of Utah and Idaho, while other members of the group care for the livestock and the farm at home on the Reservation.

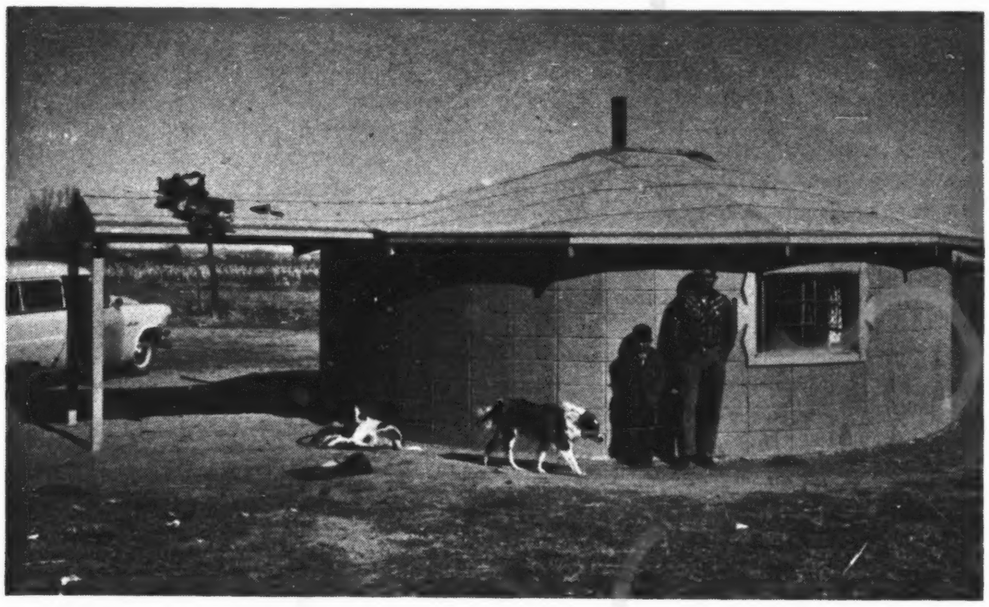
The extended family group, in its turn, is an aspect of a larger, although more loosely associated, sociological unit, commonly referred to as a community. There are no communities in the sense of being villages in the Navajo country except as such have grown up around Government schools, hospitals and administrative centers or around missions. Towns or villages are not aspects of Navajo culture itself. However, under the leadership of one or more of the ablest family heads, families and family groups cooperate as members of a community group, tied by bonds of marriage, relationship, adjacent residence, common interest and the like. The community groups can be closely identified with specific areas of land use and residence, and each has its own social structure. They are not formalized nor closely knit units, but they are basic to traditional land use and economy on the Reservation.

Although it still retains an important function in terms of limiting the marriage choice, the Navajo clan has lost many of its historical functions. A person acquires clan membership by the fact of birth into his mother's clan, and cannot marry a member of that clan, a member of a closely related clan, or a member of his or her father's clan, since clan "brothers" and "sisters" are considered in the same manner as blood relatives insofar as marriage is concerned.

Briefly, the foregoing purports to be a sketch of Navajo social organization, and to a great degree, **as a generalization,** it is still true with regional variations, of a majority of the Navajo people. However, the Navajo are undergoing rapid cultural change. Diversification of the Navajo economy, formal schooling, pressures for acculturation and a multitude of allied forces are working toward the individualization of the group. In his traditional society the individual functioned as a member of a group; in the western European society into which he is being integrated he is under pressure to function as an individual. He pays rent on his house, lives by wages instead of the land or by a combination of the two, must live at the location of his wage work all or part of the time, etc. Thus, a generalized description of Navajo social organization must, perforce, fit only a segment of the group and be a highly relative matter.

DRESS: Generally speaking, Navajo men dress in what is commonly known as "western" garb including levis, western shirts, cowboy boots, etc. Some still make and wear excellent moccasins. The women characteristically wear long fluted calico skirts and contrasting velveteen blouses, often with a Pendleton blanket draped over the shoulders. Both men and women commonly wear varying quantities of silver, turquoise, coral and abalone shell jewelry, including earrings, bracelets, rings, necklaces and ornate buttons and belts, especially in public. Some men still wear their hair long, tied in a knot behind their head with white woolen yarn in a style similar to that used by most of the women.

However, a majority of the men nowadays cut their hair, and an increasing number of the younger women cut and curl their hair after the fashion of the white women, and wear conventional dresses or combinations of commercial blouses with the traditional skirt.



A modern hogan constructed on a traditional pattern, but using concrete blocks and incorporating a shaded doorway, a tar-paper roof, and other types of modernization.

The Origin and Development of Navajo Tribal Government[1]

A little over a century ago the territory occupied by the Navajo people became a part of the United States. At that time, and previously, the Navajo Tribe did not exist in the ordinary political sense. There was a group of people sharing a common language and culture, but political organization apparently did not extend beyond local bands led by headmen called **naat'aanii.**[2] The headmen enjoyed varying amounts of power based on their persuasive ability, but no powers of coercion were attached to the office; the position of headman was not hereditary, and coalitions of headmen were probably few and of short duration. In short, the Tribe did not constitute a political entity.

According to legend the Tribe was once more closely knit politically under the naachid, an organization reportedly composed of twelve Peace Chiefs and twelve War Chiefs, **elected** for life. It is said that the **naachid** gathered periodically for ceremonials and council, and that such conventions were dominated by one or another category of **naat'aanii** as circumstances might require. If such an organization was indeed functional in recent times it quite apparently was not a potent force in Navajo affairs at the time the United States Government first entered the picture in 1846.

In fact, lack of formal political organization, and especially of responsible tribal leadership, constituted a serious problem for American military and administrative personnel charged with responsibility for treaty-making, control and program direction. An agreement with one headman or band, or even with a group of headmen or bands was not binding upon other Navajos who had not themselves been parties to the same agreement. In fact, a headman might find himself unable to control all of the people over whom he ordinarily exercised influence, and might find himself powerless to uphold his end of an agreement. The Spanish and Mexican governments before 1846 had experienced similar difficulties in their relationship with the **Indios Barbaros** or Wild Tribes, and had attempted by various means to establish a peaceful relationship between these Indians and the colonists. In the late 1700's an effort was made by the Governor of New Mexico to establish such a relationship through diplomacy and bribery. This involved the **promotion** of certain Navajo headmen to the title of **Captain** or **General,** and persons elevated to this rank received regular gifts or other emoluments in exchange for keeping the peace. This effort was perhaps somewhat more effective than the previous system of retaliatory raiding, but did not wholly accomplish its objective.

General Kearney took Santa Fe in August of 1846 and almost immediately came into contact with raiding Navajo war parties. The latter stole some of his livestock, raided some of the nearby Rio Grande Valley settlements, and brought him face to face with the same problems of establishing and maintaining peace in the newly acquired territory that had beset his predecessors in the New Mexican capitol for more than a century. In fact, as the United States Government groped for an effective means through which to deal with a people that was not organized along conventional political lines, its representatives recapitulated most of the errors and fallacies attendant upon previous efforts by the Spanish, and later the Mexican, governments.

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[1] Prepared by Robert W. Young, largely from documentary source material in the files of the Bureau of Indian Affairs.

[2] Literally "speech makers." (Cf. nanit'a, he makes speeches; he is an orator; he moves his head from side to side. Binanit'a'i, his leader; his headman.) See "Some Aspects of Navajo Political Structure," by W. W. Hill, Plateau, Vol. 13, No. 2.

Kearney dispatched an expedition against the Navajo, under the leadership of Col. Doniphan, and about 500 Navajos were forced to attend a meeting at Bear Spring (later the site of Fort Wingate). The turn of events was explained by Doniphan, and the Navajos agreed to sign a treaty of peace with the United States. It was signed, on behalf of the Navajos, by fourteen headmen, the troops returned to Santa Fe, and to the consternation of General Kearney, Navajo raids continued unabated. Apparently, the American military did not realize the nature of Navajo social organization, with its lack of a formal political system, because on September 9, 1849 another "Treaty of Peace" was signed with the Navajo. This treaty was ratified by the Senate exactly one year later, in 1850, and proclaimed by the President on September 24 of the same year. On behalf of the Navajos, the treaty of 1849 was signed by Mariano Martinez, under the title of "Head Chief" and Chapitone, identified as "Second Chief."

The treaty of 1849 cited certain provisions of the Treaty of Guadalupe Hidalgo, signed by representatives of the Mexican and United States Governments on February 2, 1848, wherein the Navajo along with other Indian Tribes in the ceded territories were placed under "the exclusive jurisdiction and protection" of the United States.[3] It bound the Navajos and the United States to "Perpetual peace and friendship," placed them under federal laws governing trade and intercourse with Indians, annexed the territory of the Navajos to New Mexico, provided for adjustment of boundaries by the United States, the establishment of military posts, and the return of property stolen by the Navajos, in conjunction with other customary treaty provisions. Needless to say, the Treaty of 1849 was no more effective than Doniphan's effort at Bear Spring. In fact, it is very doubtful if the Navajos participating in this treaty even understood the import of the stipulations it contained. Even today, with the comparatively broad background of information in the possession of the average Navajo, interpretation and comprehension of the provisions of the Treaty of 1849 would not be easy; in 1849 parts of the document would have been virtually impossible to interpret, especially as such explanation involved concepts bearing on federal responsibility for regulation of "trade and intercourse" with Indians, and similar matter. Whatever the case, the pledge of two Navajo headmen could not possibly affect the future relationship between the United States Government and the Navajo Tribe. These two men may have been entirely sincere in their promises, but the position of affluence their treaty titles imply was fictional. Neither of them was a "Head Chief" with respect to all the Navajo people; they were merely two of many local leaders.

It was not until General Carleton decided, in 1863, to open an Indian war in New Mexico,[4] that the raiding career of the Navajo Tribe was finally ended and the group was brought under close control by the Federal Government.

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[3] See "Treaty Between the United States of America and the Navajo Tribe of Indians," Vol. III, Navajo Tribal Council Resolutions.

[4] See "Turmoil in New Mexico, 1946-68," by Wm. A. Keleher, pp. 278-79.

By 1865 the military had become aware of the fact that Navajo political organization, along conventional European lines, did not exist, and it was at Fort Sumner that the first plans were laid for the development of a political organization deemed necessary for control of the captives. The plan involved settlement of the exiles in twelve villages, each under the leadership of a chief or headman to be appointed by the Commanding Officer. Writing in 1865, General Carleton expressed the view that "Once I can divide up the land so as to let a given quantity be set apart for a certain number of Indians, and have it defined by a wall, which they can make, once the lines are drawn, the great step towards organization will at once commence. Now, I have but a mass of Indians with no acknowledged head, and no subdivisions."[5]

With further reference to the proposal that a form of government be developed for the Navajos in exile at Fort Sumner, a military report dated April 26, 1865[6] included the details of the proposed plan of organization. It was pointed out that "Bearing in mind the fact that the government of the Navajos has always been patriarchal, without a recognized or acknowledged head of the nation, and that each chief had supreme control of his own family or band, it became apparent to the board that this form of government should be adopted as far as practicable and consistent with the interests of the government and the good of the tribe.

"The first step towards this end is the dividing them off into villages, at say half a mile apart, the farm of each village to be in its immediate front, and the number of villages to be twelve, this being the number of principal men having families or bands. To each village there should be one principal chief, whose duty it will be to carry out and enforce all laws given him for the government of his village, or any instructions which he may receive at any time from the commanding officer. . . ." Sub-chiefs would be appointed by the Chief in the ratio of one per hundred population, and in the event of a vacancy in the position of Chief, the commanding officer would appoint one of the village sub-chiefs to fill the vacancy.

Apparently the puppet government proposed by General Carleton and his aides did not take shape, but rather the Navajos continued to live in the traditional manner in extended family groups or small bands. Following their return to the Navajo Country after conclusion of the Treaty of 1868, the Navajo people continued their previous form of social organization and it was not until very recent times that another attempt, this time successful, was made in the direction of formal political organization.

Between 1868-1901, the Navajo Agent lived at Fort Defiance and his contacts with Indians living in more remote portions of the Reservation were few.

For a time the Agent leaned heavily upon former war chiefs for assistance in the maintenance of order — especially upon those who had gained prestige during the Fort Sumner period. Sometimes, "councils" of headmen were called, and through the medium of these loosely constituted assemblies, the Agent attempted to reach and influence the

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[5] See letter of April 24, 1865, from General Jas. H. Carleton, "Condition of the Indian Tribes," pp. 224-225. Publ. GPO 1867.

[6] Op. cit. pp. 308-310.

Navajo people. It was an extremely difficult, if not impossible, task and as the old leaders died off, the Agent found it necessary to operate in a quasi-autocratic manner. To facilitate control and program direction during the period 1901-1934, the Navajo Country was divided into separate agency jurisdictions, the number reaching a total of six by the close of the period (including the Hopi). Although this arrangement minimized the expanse of territory for which each superintendent was responsible, it did not foster the development of tribal unity, nor did it encourage the development of **tribal** government.

The development of a medium for effective communication and contact between the federal government and the Navajo people remained a serious problem and, in 1927, John Hunter, Superintendent of Leupp Agency began the development of local community organizations which came to be known as Chapters. These were designed to bring the Navajo people together at a local level where representatives of the Bureau of Indian Affairs, in conjunction with returned Navajo students, could exert more effective influence toward the improvement of livestock and agricultural techniques, the advancement of education and other objectives of the administration.

The Chapter movement spread rapidly as other Navajo jurisdictions took it up, coming temporarily to a halt during the years of controversy over stock reduction and range control — roughly 1932-1950 — the Chapter movement revived after 1950, and it has steadily gained strength until today there are 96 recognized Chapters located throughout the Navajo Country.

The Chapter movement began only a few years after the establishment of the first Navajo Tribal Council, but for many years the Chapters were more important as aspects of Navajo political life than the artificially created Council.

The need for creation of a representative governing body had existed for many years, but the concept did not fit within the context of traditional Navajo social organization, and it was not until 1921 that a motive presented itself, sufficiently compelling to overcome the inertia that had previously prevented steps toward the institution of tribal government. In 1921, oil was discovered within the boundaries of the original Treaty Reservation, and the Midwest Refining Company was authorized to negotiate with the Indians of the San Juan (Northern Navajo) Jurisdiction for an oil and gas development lease. A "general council" (i.e. assembly) of the Indians resident in that jurisdiction was called, and a lease was approved for oil and gas purposes on 4,800 acres of land. The calling of the "general council" no doubt met the requirement set forth in Article X of the Treaty of 1868 which provided that "no future treaty for the cession of any portion or part of the Reservation herein described, which may be held in common, shall be of any validity or force against said Indians unless agreed to and executed by at least three fourths of all the adult male Indians occupying or interested in the same. . . . . . " However, the use of a "general council" as a medium for securing the approval of the Tribe to leases and other actions affecting tribal resources was clumsy and actually limited in its application on a reservation-wide basis.

At about the same time three additional 4,800-acre oil and gas leases were authorized by a **general council** of Indians resident in the Southern Navajo jurisdiction. These were surrendered for cancellation after only a few months. Several additional leases were subsequently negotiated with Indians of the San Juan jurisidiction, but these were disapproved by the Secretary of the Interior. Whereas, originally, lease approval by a **general council** of Indians within the jurisdiction where the oil and gas was found was considered sufficient, on the premise that **it belonged exclusively to the Indians of that jurisdiction,**[7][8] the policy of the Department of the Interior changed to accept the premise that oil and gas discovered in any part of the Reservation belonged to the Navajo Tribe as a whole, and not exclusively to the residents of the jurisdiction in which it was found. Application of this policy made it unfeasible to continue the system of calling "general councils" which might and might not represent three fourths of the adult male population of the Tribe, and focused attention on the compelling necessity to develop a democratic, representative tribal governing body which would comprise membership from all of the Navajo jurisdictions, and with whom all matters of Tribal interest could be resolved. During 1922 a "Business Council" composed of Chee Dodge, Charlie Mitchell and Dugal Chee Bekiss acted on behalf of the Tribe in the negotiation of leases.

However, the legality of the "Business Council" was questionable, and on January 27, 1923, Commissioner of Indian Affairs Charles H. Burke promulgated a document entitled "Regulations Relating to the Navajo Tribe of Indians." It was approved on the same date by Assistant Secretary of the Interior F. M. Goodwin.

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[7] An argument that lingers to the present day.

[8] Memorandum of January 27, 1937, D. W. Weekley, Lands Division, to John Collier. The document states, in part, as follows: "The immediate cause for the creation of an elective Council was the discovery of oil on the treaty part of the reservation. In 1921, the Midwest Refining Company was authorized to negotiate with the Indians of the San Juan (Northern Navajo) jurisdiction for an oil and gas lease. At a general council of the Indians of that jurisdiction an oil and gas lease covering 4,800 acres near the eastern boundary of the treaty reservation was authorized in favor of the company. The lease was approved by the Interior Department and a well was drilled, very high grade oil being found at a shallow depth. About the same time, three 4,800-acre oil and gas leases were authorized by a general council of Indians under the jurisdiction of the Navajo (Southern Navajo) Agency. These three leases were held only a few months, and were surrendered for cancellation by the lessees.

"After the discovery of oil, several other leases were negotiated with the Indians of the San Juan jurisdiction. These leases were disapproved. **Upon further consideration** it was felt that the mineral resources, including oil and gas, on the treaty part of the reservation belonged to the Navajo Tribe as a whole, and not merely to that part of the Tribe living in the jurisdiction where oil might be found. With this end in view, provision was made for a council which would represent all the jurisdictions into which the Navajo Tribe was divided, and with whose members all matters of tribal interest could be taken up.

"The first council was elected in 1923, and its first meeting was held July 7, 1923. By a resolution passed at that time, the Commissioner to the Navajo Tribe was authorized to sign oil and gas mining leases on behalf of the tribe ----"

See also the lease dated August 15, 1921, between Evan W. Estep, Superintendent, San Juan Indian Agency (School) and the Midwest Refining Company, which again points to the fact that resources discovered on specific reservations composing the Navajo Country were considered to be the exclusive property of the residents of the reservation area wherein they were found. The lease states, in part, as follows: "The lessee hereby agrees to pay or cause to be paid to the Superintendent of Indian School or other officers of the United States having jurisdiction over the leased premises ---- **for the use and benefit of the Indians of said reservation** ---." The lease was approved by Assistant Secretary of the Interior F. M. Goodwin on November 4, 1921.

Likewise, a lease assignment dated April 24, 1933, states "Whereas, on the fifteenth day of August, A.D. 1921, Evan W. Estep, Superintendent of San Juan Indian Agency, **being duly authorized by the Council** (i.e. **general council,** comprising the adult Indians resident in the jurisidiction) speaking for the Indians occupying the Navajo reservation, entered into a mining lease----"

However, a few months later, a new set of regulations was issued over the signature of Acting Commissioner E. B. Meritt, and these were approved on April 24, 1923, by Secretary of the Interior Hubert Work.

The first meeting of this group took place on July 7, 1923, at which time it adopted a resolution authorizing the Commissioner to the Navajo Tribe (a position established in conformity with the Council regulations of 1923) to sign oil and gas leases on behalf of the Tribe. The Secretary of the Interior was authorized and requested, by the same resolution, to advertise a number of tracts for lease purposes. Of these, two tracts produced oil, and for many years the first tract authorized for lease by the "general council" in 1921, plus the two authorized by the Tribal Council in 1923, remained the only producing oil wells on the Navajo Reservation, and these provided a large part of the tribal funds which accumulated in the Treasury between 1921-1957.[9]

During the first ten years of its existence the Tribal Council met on an annual basis, usually for a period of two days. The membership of the first Council was to have been composed originally of a delegate and an alternate from each of the six superintendencies (San Juan, Western Navajo, Southern, Pueblo Bonito, Leupp and Moqui), who in turn elected a Chairman and a Vice Chairman.

However, the inequality of this apportionment apparently led to revision in the April 24, 1923 version of the Council regulations to provide for a total of twelve delegates and twelve alternates, apportioned among the six jurisdictions in proportion to the population.

The Chairman was chosen from candidates outside the Council membership, while the Vice Chairmanship was filled by one of the delegates. Council meetings were called by the Commissioner of the Navajo Tribe, and could not be held except in his presence.

The "Regulations Relating to the Navajo Tribe of Indians," as promulgated on January 27, 1923, and as amended on April 24 of the same year, are reproduced as an appendix to this section as a matter of historical interest. Although, in general they parallel each other closely, there are significant differences as noted above.

On April 20, 1927, the Council regulations were amended with respect to sections 4, 16, and 17: (a) to establish 5-year terms of office for the delegates and officers in lieu of the four-year terms provided by the previous regulations, and (b) to provide further for such contingencies as the death or removal of the Chairman or Vice-Chairman.

The amendments promulgated by Charles H. Burke, Commissioner of Indian Affairs, and approved on April 20, 1927, by the First Assistant Secretary of the Interior, E. C. Finney, are reproduced in the appendix to this section.

On October 15, 1928, a new set of regulations governing the Navajo Tribal Council were promulgated over the signature of Commissioner Charles H. Burke, under the title "Regulations Relating to the Navajo Indian Tribal Council."

The new regulations made several changes, including (a) provision for voting by both men and women, (b) the Commissioner of Indian Affairs in lieu of the Commissioner of the Navajo Tribe calls meetings of the Council, (c) the term of office is established at four years instead of five.

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[9] The Rattlesnake, Table Mesa and Hogback leases.

The regulations as promulgated on October 15, 1928 are reproduced in the appendix to this section.

The Navajo Tribal Council continued primarily on the basis of the 1928 regulations, until 1936. The early Council membership was adversely criticized because it allegedly did not represent the true leadership of the Tribe or the Navajo people. It was an innovation, the function of which the people could not understand at that period in Navajo history, and the real leadership remained at a local level and in the hands of the headmen. At first, the issues confronting the Council, and the decisions taken by the governing body, did not affect the everyday lives of the people to any great extent, but after the turn of the 1930's the issue of grazing controls began to loom large and the decisions of the Council began to affect the people themselves. As a result, the Council, as an instrument of government, became an aspect of a growing controversy between the Tribe and the Federal Government, with especial reference to range management as it involved livestock reduction. This changing climate is reflected in a letter of June 18, 1937, signed by Commissioner John Collier, who observed that "From its first meeting in July, 1933, to date, the Navajo Council has never been in conflict with the Administration. It has endorsed and supported all of the major policies, specifically: consolidation of the six jurisdictions into one, the day school plan, the stock reduction and range-control program in its progressive developments and the land-settlement program known as the Navajo Boundary Bill. . . . [It] endorsed the eighteen (18) land management district. It appointed the grazing committee to assist in the establishment of these districts. It recommended the grazing regulations with their stock reduction features, which subsequently have been promulgated by the Secretary of the Interior. . . "

True, the Council had not been in conflict with the administration, but it had moved far ahead of the Navajo people, and by 1936 it had come into open conflict with a significant proportion of the Navajo electorate.

A reorganization of the Council along constitutional lines would have taken place in 1934 if the Navajo Tribe, by the narrow margin of 7,992 to 7,608, had not rejected the Indian Reorganization Act. During this period there had come into being a powerful minority faction sometimes referred to as the "separatists," a group which favored the *establishment of a separate jurisdiction for the Navajos living in New* Mexico and restriction of tribal income from oil royalties for the exclusive use of those members of the Tribe residing in that area.[10] At the same time the separatists, under the leadership of Jacob Morgan, attacked the range mangement and stock reduction programs of the administration. As a result, the only action toward reorganization in 1934 was the adoption of a resolution amending the Council regulations to eliminate the position of Alternate Delegate, and double the existing Council membership by declaring the alternates to be Regular Delegates. The term of office was set at four years, and certain other minor changes were made.[11] However, the need for reorganization on a far broader scale demanded early attention if the concept of democratic tribal government was to survive and grow.

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[10] Compare minority efforts in recent years to restrict the use of oil and gas bonuses and royalties to the persons resident in the immediate areas of oil and gas development.

[11] See Council resolution of July 10, 1934.

The last meeting of the old Tribal Council was held on November 24, 1936, and foremost on the agenda was a resolution authorizing and requesting reorganization of the governing body. The resolution expressed the view that the old Council, established for the purpose of "making oil and gas leases," was inadequate to act on behalf of the Tribe in the broad field necessary. As one Council member expressed it at the Council session on November 24, 1936, ". . . . two years ago a kind of split up you might say happened [i.e. the vote on the Indian Reorganization Act] which doesn't look very good towards the present Council, and the meetings we have been having since then seems to be more an argument than anything else."

The resolution also provided that the members of the existing Executive Committee of the Tribal Council[12] and the former Chairman (Henry Tallman) be designated as a Committee to call a constitutional assembly for the purpose of considering and adopting "a constitution or by-laws" for the Navajo people.[13]

This action followed on the heels of a meeting of the Executive Committee held on the preceding day (November 23, 1936), at which Commissioner John Collier had told the group "You know that for a good while the subject of reorganizing the Tribal Council has been in the air and talked about. . . . . . . We have come now to a time, it seems to me, when we need a more careful representation of the areas of the Reservation. . . . . Secretary Ickes has concluded that there ought to be a reorganization. . . . . I suggest that a committee be formed, a constitutional committee, to work out a constitution, including constitutional by-laws. That committee ought to be rather large and representative of all of the districts of the Reservation. It ought to meet and work out things satisfactory to the Navajos. When that is done we will embody that in regulations. In other words, I am not advocating the abolishment of this Council. I am going to announce plans for the reorganization of it. Let me be very clear. I am not talking about the Wheeler-Howard Act [Indian Reorganization Act] . . . . . I am talking about the Tribal Council as organized under regulations of the Interior; the Council which derives its powers from the regulations, but only this Council whose Executive Committee is here. It should change its organization so that it will be more representative and active." [14]

The Council resolution of November 24, 1936, established the Executive Committee as a committee charged with the responsibility for calling a constitutional assembly, but imposed no restriction on method, procedure or membership. The Committee, with the aid of Fr. Berard Haile and Chee Dodge, canvassed the Reservation for the purpose of identifying the Navajo leadership in the person of the most influential headmen, and to explain the purpose of the proposed reorganization of the Tribal Council. It was the intention of the Committee to establish those headmen as the membership of the constitutional assembly. A total of 250 names of headmen were assembled.

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[12] On November 24, 1936, an Executive Committee was appointed to act on grazing regulations with the Commissioner of Indian Affairs. The appointment of a 3-member Executive Committee by the Chairman of the Tribal Council had been authorized by a resolution adopted on July 8, 1933, and on April 10, 1937, the Council authorized the Chairman to establish an Executive Committee composed of one delegate from each land management district, empowered "to act on all routine tribal matters."

[13] Council resolution adopted on November 24, 1936.

[14] See minutes of the Executive Committee of the Navajo Tribal Council, November 23, 1936.

On March 9, 1937, the Executive (or Constitutional) Committee adopted a resolution establishing a proposed procedure to govern Council reorganization. The proposal included the following points: (1) authorization for the Executive Committee to select the membership of the proposed Constitutional Assembly from the list of 250 headmen, reducing this number to a total of 70 in the interests of practicality, but carefully choosing them to provide adequately for full representation of all parts of the Navajo Country; (2) provision for approval of the membership of the Constitutional Assembly by the Superintendent of Navajo Agency in lieu of the Commissioner of Indian Affairs, after which the existing Tribal Council would dissolve itself; (3) provisions for calling a meeting of the Constitutional Assembly after dissolution of the existing Tribal Council, with the further understanding that if the Consitutional Assembly, by is own action so demanded, its members would in fact be recognized as the Reorganized Council; (4) a request that the Secretary of the Interior appoint the new Chairman of the Tribal Council in the event the Consitutional Assembly elected to designate itself as the Reorganized Council; (5) provision for continuation of an Executive Committee composed of "High Councilmen," and chosen in a manner not specified on the basis of one member per District. The Executive Committee would review and pass upon all items of business presented to the Tribal Council; (6) provision for the designation of a Business Committee by the High Council or Executive Committee from among its own membership; (7) provision for recognition of the headmen chosen, as bonafide representatives of the Navajo people; (8) provision for appropriate amendment of the Council Regulations of 1928 to reflect the foregoing proposals; (9) provision for this Council to act and hold office until a constitution could be framed and presented for approval by the Commissioner of Indian Affairs.

On March 11, 1937, the Executive Committee adopted a resolution calling the members of the Constitutional Assembly to their first meeting, and establishing the meeting day as April 6, 1937, for the "purpose of organizing the Constitutional Assembly, and the making and the adoption of an acceptable constitution for the Navajo Tribe and for any other purpose that may be necessary for the welfare of the Tribe."

Both resolutions were recommended for secretarial approval by Superintendent E. R. Fryer, and by the Commissioner of Indian Affairs. The Superintendent, in a letter of March 12, 1937, indicated that it would be necessary to hold a general election in the event that the Constiutional Assembly could not or did not declare itself to be the **de facto** Tribal Council, and he expressed the opinion that the leaders chosen from among the 250 names of headmen had indeed already been elected by local Navajo people. The period was one of great turbulence, and one in which the separatists were quick to take advantage of any situation that might present itself for the furtherance of their political aims. The climate was not a good one in which to call a general election for reorganization of the Tribal Council if this necessity could be avoided, pending development of the proposed tribal constitution.

Commissioner Collier recommended approval of the proposal contained in the Executive Committee resolution of March 9, 1937, providing for appointment of a new Council Chairman by the Secretary of the Interior, although he did so with some misgiving. He justified his concurrence on the premise that "the Council, existing or reorganized, is an institution created by the Secretary. Its authorities are derived from regulations."[15] Therefore, it would lie within the scope of the Secretary's authority to accede to this request.

On March 29, 1937, Secretary of the Interior Ickes approved the Executive Committee resolution setting the date for the Constitutional Assembly meeting at April 6, 1937, but on April 8 word was received at Navajo Agency to the effect that the Council should proceed to elect its own Chairman and Vice-Chairman in the event that the Constitutional Assembly decided to declare itself the **de facto** Tribal Council. The first meeting of the Constitutional Assembly was called, in fact, for April 9-10, 1937.

The first day of the convention apparently was devoted almost exclusively to the ominous subject of livestock reduction, with little or no reference to the subject of reorganization of the Tribal Council on a constitutional basis! Sixty-eight delegates were present and they were seated in sections marked off in the Council House to accommodate the delegation from each district. There was a large crowd of onlookers who had come, largely in anticipation of a fight. Marcus Kanuho, Vice-Chairman of the old Tribal Council, was seated on the platform, and acted as presiding officer.

A resolution was read to the Assembly, expressing its purpose as that of developing a constitution for the Navajo Tribal government, and organizing the Assembly toward that end. However, the resolution was never acted upon because its reading threw the convention into a bedlam of disorder. Jacob Morgan and the separatists demanded that the Tribe be given an opportunity to vote on the dissolution of the previous Council. After the issue was resolved, a motion was made and seconded that the Consitutional Assembly declare itself to be, in fact, the Tribal Council, and that it proceed to draft a constitution and by-laws for the Tribe. The motion was adopted by a vote of 66-2.

A resolution was then adopted authorizing the Chairman pro tempore to appoint a Committee on Nominations, consisting of seven members of the Assembly. The Nominating Committee would name not more than four candidates for each of the offices of Chairman, Vice-Chairman, Secretary, Treasurer and (two) sergeants-at-arms. The delegates to the Constitutional Assembly would then elect one candidate to each office by means of secret ballots. Henry Tallman was elected Chairman. On a motion by Jacob Morgan, the Vice Chairman was elected by standing vote, and Roy Kinsel was selected for this office.

A resolution was then read, authorizing the Chairman to appoint a committee charged with responsibility for drafting the constitution, and providing for ratification by the Navajo electorate following its approval by the Secretary of the Interior. The dissenters followed Jacob Morgan in exit from the Council Hall at this point, following a denunciation of the proposal by the latter, but the resolution was adopted by a vote of 64-0. The Chairman immediately proceeded to name Jacob Morgan as Chairman of the Constitutional Committee, which in turn was composed of Jim Shirley, Robert Curley, Roy Hashkan and Frank Mitchell. A resolution followed to provide for the payment of per diem to the Committee members, and another resolution was acted upon to establish an Executive Committee composed of one delegate from each land management district to act on "all routine tribal matters." This action ended the first meeting of the reorganized **de facto** Tribal Council which had begun its career on the previous day (April 9, 1937) as the Constitutional Assembly.

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[15] Memorandum dated March 23, 1937, from Commissioner Collier to the Secretary of the Interior, transmitting the Navajo Tribal Council resolution of March 9, 1937.

With the aid of Thomas Dodge and other consultants, and despite Mr. Morgan's refusal to accept Committee chairmanship, the Constitutional Committee moved swiftly to complete a draft of the proposed Tribal Constitution, and the document was transmitted officially to the Commissioner of Indian Affairs on October 25, 1937. The hope was expressed that the Tribal Constitution might be incorporated in a special Act of Congress. At the same time, the question was raised as to when a Council election should be scheduled and held. No term of office had been specified for the provisional Council, beyond the understanding that it would continue in existence until a Constitution could be drafted.

In his memorandum of March 23, 1937, to the Secretary of the Interior, the Commissioner of Indian Affairs had recommended Secretarial concurrence with the proposal that the Constitutional Committee be permitted to declare itself to be the **de facto** Tribal Council on the premise that "the Council, **existing or reorganized,** is an institution created by the Secretary. Its authorities are derived from regulations. . . ."

The 1937 Tribal Council, therefore, was conceived as an instrumentality of the Secretary of the Interior and not primarily as an official Tribal organization empowered to exercise all of the residual quasi-sovereign powers of the Tribe. It was the intention of the administration to encourage the Tribe to proceed to develop a constitutional basis for self-government through an elective Council body, and subsequently to attempt to obtain Congressional action giving formal recognition to this body to thus place it on a par with the tribal governments developed by other tribes under the Indian Reorganization Act. However, it was generally agreed in view of the prevailing dissension and conflict within the Tribe itself as well as between the Tribe and the Federal Government, that the time was not propitious for such a step. As a result the proposed constitution was not approved by the Secretary of the Interior. At the same time there was an urgent need to call a Tribal election to replace the existing **de facto** Council nee Constitutional Committee, since this body had accomplished its purpose with the drafting of the proposed Tribal Constitution.

At first it was recommended that the Council by-laws as developed by the Constitutional Committee, in conjunction with a portion of the proposed constitution itself, be promulgated by the Secretary of the Interior as the basis for a new, elective Tribal Council. This proposed set of regulations would include an election procedure, a definition of organization of the governing body, a statement of its powers and a description of its mode of operation.

After further discussion, partly at a Departmental level and partly at a Reservation level, a decision was reached by the Secretary of Interior to promulgate a set of highly simplified by-laws, sufficient only for the election and organization of the Navajo Tribal Council. The Constitutional Committee itself was opposed to inclusion of any part of the proposed Constitution as part of the by-laws because they believed that the Constitution should be placed in effect only after formal referendum approval by the Navajo electorate. As a result, the "Rules for the Tribal Council," as promulgated on July 26, 1938, by the Secretary of the Interior provide only the barest framework for organization of the Tribal Government. It was recognized by the Secretary of the Interior (Chapter I, Section I) as the "governing body of the Navajo Tribe," but the extent of its power is not described. From one point of view, as the creation of the Secretary of the Interior, the Tribal Council could exercise only those powers which he, the Secretary, conferred upon it, or recognized as vested in it; from another point of view, it could exercise the quasi-sovereign powers residing in the Navajo Tribe only with the consent of and to the extent permitted by the Navajo electorate—consent that would have been embodied in a Tribal Constitution, had such a foundation of Tribal government been adopted.

The proposed Constitution as developed by the Constitutional Committee under the Chairmanship of Jim Shirley, is reproduced as a part of the appendix of this section, in view of its historical interest.

In conformity with the new "Rules for the Navajo Tribal Council" approved on July 26, 1938 by the Secretary of the Interior, the first election was held on September 24, 1938, and the first meeting of the reorganized Council took place on November 8 of the same year.

In its new form, the Council membership was increased from the 12 delegates and 12 alternates provided in the 1928 regulations to 74 delegates elected from "election communities" within the land management districts. The term of office for the delegates as well as for the Chairman and Vice Chairman, remained 4 years, but the executive heads of the Council were limited to not more than two terms in office. The minimum voting age remained 21 years.

Under the 1938 regulations, the Commissioner of Indian Affairs no longer reserved the right to appoint delegates or alternates in the event that the people failed to elect them, or to fill vacancies on the Council, and the requirement that Council meetings be held only in the presence of a Government official was eliminated. Council meetings were still called by the Commissioner of Indian Affairs, but at the request of a majority of the members of an Executive Committee created as an aspect of the reorganized governing body.

The Executive Committee, designed to expedite the routine business of the Tribe, was to be composed of Chief Delegates chosen by fellow representatives from each of the land management districts.

Previous elections had not utilized a secret ballot, and candidates were apparently chosen by acclaim or by standing vote. The 1938 regulations provided for the use of colors to identify candidates, thus permitting voters to cast their ballots privately by choosing the color which identified the candidates of their choice. All candidates were elected on the basis of a majority vote, and if none received a clear majority, a run-off election was necessary.

For the purpose of naming candidates to the office of Chairman of the Council the Reservation area was divided into four "provinces" or areas. About 30 days before each election, the voters from each such area assembled at a place designated by the General Superintendent to cast their votes for the selection of the province candidate. The person receiving the greatest number of votes was certified as the candidate and, following completion of the nominating conventions in all of the provinces,

The Navajo Tribal Council in the early 1940's. Chee Dodge, famous Navajo leader addresses the Tribal Governing Body.

A 1946 meeting of the Tribal Council.

the candidates thus selected met to draw for the colors by which they would be identified in the general election.

The candidate receiving a majority of the votes cast became Chairman and the candidate receiving the next highest number of votes became Vice Chairman. If no candidate received a clear majority, a run-off election was necessary.

The 1938 election saw the emergence of Jacob Morgan, previously the opposition leader, as Chairman of the new Council—a position in which he gained great distinction as a tribal leader in the ensuing four years. Howard W. Gorman served with him as the first Vice-Chairman of the reorganized Council.

The 1938 "Rules for the Navajo Tribal Council," with a number of amendments, continue as the basis for the present Navajo Tribal Government. Section 6 of the Navajo-Hopi Rehabilitation Act permitted the Tribe to develop a Tribal Constitution, but none has thus far been developed in final form, and the powers of the Council are nowhere defined or delimited. In fact, there has been a growing tendency on the part of the Federal Government as well as on that of the Tribe, to equate the **powers of the Council** with those residual sovereign powers remaining in **the Tribe,** although **the Tribe** has never acted formally to recognize the Council as the governmental organization authorized **by the people** to exercise those powers in their behalf. The "sovereign" powers residing in **the Tribe** are all those powers of self-government which Congress has not taken away from the Tribe by law or treaty. The fact that there was, indeed, no Tribal government and no Tribal political organization in 1868 when the United States government concluded a Treaty with the Tribe does not detract from the powers for self-government, potential if not actual, which the Tribe exercised at that time, and it apparently became a "Treaty-sovereign" by virtue of the fact that the Federal Government did indeed conclude a Treaty with it, thus recognizing or implying recognition of its previous sovereign status. The Tribe retains those broad powers it always had over its internal affairs and its natural resources within the limiting framework of applicable laws enacted by Congress, and the Council gradually and informally has assumed the status of a mechanism through which the Tribe exercises those erstwhile latent powers.

The doctrine of Indian self-government, culminating in the Indian Reorganization Act, has long been the subject of litigation and controversy, especially as it relates to the scope of Tribal powers. It has been generally accepted, as a principle of law, that the powers of self-government attaching to Indian tribes do not derive generally from delegations of power from the Federal Government, but rather from original Tribal sovereignty. Treaties and statutes limit those original powers, but the courts have held that the laws of conquered nations are changed only by positive enactments[16]. In fact, it is pointed out that the whole course of judicial decision on the nature of Indian tribal powers is marked by adherence to three fundamental principles: (1) An Indian tribe possessed, in the first instance, all the powers of any sovereign State. (2) Conquest rendered the tribe subject to the legislative power of the United States and, in substance, terminated the external powers of sovereignty of the tribe, e.g., its power to enter into treaties with foreign nations, but did not by itself terminate the internal sovereignty of the tribe, i.e., its powers of local self-government. (3) These internal powers were, of course, subject to qualification by treaties and by express legislation of Congress, but, save as thus expressly qualified, many powers of internal sovereignty have remained in the Indian tribes and in their duly constituted organs of government.[17]

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[16] See Federal Indian Law, Chapt. VI, Derivation of Tribal Powers, GPO 1958.

[17] Op. cit. p. 398.

The decision of the United States Supreme Court in 1958, in the case of **Williams v. Lee,** upheld the decision of Chief Justice Marshall, in 1832, in the case of **Worcester** v. **Georgia.** Both of these historic decisions reaffirm the generally accepted interpretation of tribal "sovereignty." The 1958 decision established the fact that the Arizona courts lack jurisdiction of a suit brought against a Navajo Indian by a federally licensed non-Indian trader to collect a debt incurred on the Reservation.

It holds that:

"Respondent, who is not an Indian, operates a general store in Arizona on the Navajo Indian Reservation under a license required by federal statute. He brought this action in the Superior Court of Arizona against petitioners, a Navajo Indian and his wife who live on the Reservation, to collect for goods sold them there on credit. Over petitioners' motion to dismiss on the ground that jurisdiction lay in the tribal court rather than in the state court, judgment was entered in favor of respondent. The Supreme Court of Arizona affirmed, holding that since no Act of Congress expressly forbids their doing so Arizona courts are free to exercise jurisdiction over civil suits by non-Indians against Indians though the action arises on an Indian reservation. Because this was a doubtful determination of the important question of state power over Indian affairs, we granted certiorari.

"Originally the Indian tribes were separate nations within what is now the United States. Through conquest and treaties they were induced to give up complete independence and the right to go to war in exchange for federal protection, aid, and grants of land. When the lands granted lay within States these governments sometimes sought to impose their laws and courts on the Indians. Around 1830 the Georgia Legislature extended its laws to the Cherokee Reservation despite federal treaties with the Indians which set aside this land for them. The Georgia statutes forbade the Cherokees from enacting laws or holding courts and prohibited outsiders from being on the Reservation except with permission of the State Governor. The constitutionality of these laws was tested in **Worcester** v. **Georgia,** 6 Pet. 515, when the State sought to punish a white man, licensed by the Federal Government to practice as a missionary among the Cherokees, for his refusal to leave the Reservation. Rendering one of his most courageous and eloquent opinions, Chief Justice Marshall held that Georgia's assertion of power was invalid. "The Cherokee nation . . . is a distinct community, occupying its own territory . . . in which the laws of Georgia can have no force and which the citizens of Georgia have no right to enter, but with the assent of the Cherokees themselves, or in conformity with treaties, and with the acts of congress. The whole intercourse between the United States and this nation, is, by our constitution and laws, vested in the government of the United States." 6 Pet., at 561. * * *

"Congress also has consistently acted upon the assumption that the States have no power to regulate the affairs of Indians on a reservation. To assure adequate government of the Indian tribes it enacted comprehensive statutes in 1834 regulating trade with Indians and organizing a Department of Indian Affairs. 4 Stat. 729, 4 Stat. 735. Not satisfied solely with centralized government of Indians, it encouraged tribal governments and courts to become stronger and more highly organized. See e.g., the Wheeler-Howard Act, Section 16, 17, 48 Stat. 987, 988, 25 U.S.C. Sections 476, 477. Congress has followed a policy calculated eventually to make all Indians full-fledged participants in American society. This policy contemplates criminal and civil jurisdiction over Indians by any State ready to assume the burdens that go with it as soon as the educational and economic status of the Indians permits the change without disadvantage to them. See H.R. Rep. No. 848, 83d Cong., 1st Sess. 3, 6, 7 (1953). Significantly, when Congress has wished the States to exercise this power it has expressly granted them the jurisdiction which **Worcester** v. **Georgia** had denied.

"No departure from the policies which have been applied to other Indians is apparent in the relationship between the United States and the Navajos. On June 1, 1868, a treaty was signed between General William T. Sherman, for the United States, and numerous chiefs and headmen of the "Navajo nation or tribe of Indians." At the time this document was signed the Navajos were an exiled people, forced by the United States to live crowded together on a small piece of land on the Pecos River in eastern New Mexico, some 300 miles east of the area they had occupied before the coming of the white man. In return for their promises to keep peace, this treaty "set apart" for "their permanent home" a portion of what had been their native country, and provided that no one, except United States Government personnel, was to enter the reserved area. Implicit in these treaty terms, as it was in the treaties with the Cherokees involved in **Worcester** v. **Georgia,** was the understanding that the internal affairs of the Indians remained exclusively within the jurisdiction of whatever tribal government existed. Since then, Congress and the Bureau of Indian Affairs have assisted in strengthening the Navajo tribal government and its courts. See the Navajo-Hopi Rehabilitation Act of 1950, Section 6, 64 Stat. 46, 25 U. S. C. Section 636; 25 CFR Sections 11.1 through 11.87 NH. The Tribe itself has in recent years greatly improved its legal system through increased expenditures and better trained personnel. Today the Navajo Courts of Indian Offenses exercise broad criminal and civil jurisdiction which covers suits by outsiders against Indian defendants. No Federal Act has given state courts jurisdiction over such controversies. In a general statute Congress did express its willingness to have any State assume jurisdiction over reservation Indians if the State Legislature or the people vote affirmatively to accept such responsibility. To date, Arizona has not accepted jurisdiction, possibly because the people of the State anticipate that the burdens accompanying such power might be considerable."

"There can be no doubt that to allow the exercise of state jurisdiction here would undermine the authority of the tribal courts over Reservation affairs, and hence would infringe on the right of the Indians to govern themselves. It is immaterial that respondent is not an Indian. He was on the Reservation and the transaction with an Indian took place there. Cf. **Donnelly** v. **United States,** supra; **Williams** v. **United States,** supra. The cases in this Court have consistently guarded the authority of Indian governments over their reservations. Congress recognized this authority in the Navajos in the Treaty of 1868, and has done so ever since. If this power is to be taken away from them it is for Congress to do it. **Lone Wolf** v. **Hitchcock,** 187 U. S. 553, 564-566—Reversed."

Thus, the Navajo Tribal Council, established by the Secretary of the Interior, largely as an instrumentality of the Federal Government, has grown to become an increasingly effective instrumentality of the Navajo Tribe, exercising the residual sovereign powers of the Tribe to the extent permitted by the Secretary of the Interior, but without the **formal** approval or consent of the Navajo people, although such popular approval is implied by the fact that the people do indeed **elect** the Council membership.

The Council "Rules" have been amended several times since 1938, although the 1938 regulations remain the basis for the governing body, as reflected in the fact that amendments and changes in its organization or manner of election still require Secretarial approval.

In 1950, The Council Election Procedure was revised,[18] with the approval of the Secretary of the Interior, to provide for more effective representation at the Province Nominating Conventions on the part of all election communities irrespective of their proximity to, or remoteness from, the Province Headquarters; the use of pictorial paper ballots was substituted for colored ribbons; the institution of voter registration was introduced; and the office of Tribal Judge was made elective. The election procedure was again revised in October, 1954 to place the total responsibility for the conduct of Tribal elections on the Tribe itself, acting through the medium of a Tribal Election Board. The regulations were again amended in 1958 and 1959 to make the office of Tribal Judge appointive on a lifetime basis. All of these amendments were submitted to the Secretary of the Interior for approval before they were placed in effect.

The growth of the Tribal Government is reflected in the increasing monetary compensation attaching to elective offices, as well as in the increased number of meeting days and the type of legislation passed by the governing body. In 1940, the Chairman of the Tribal Council received a salary of $200 per month. His duties required that he preside over meetings of the Council, act in a liaison capacity between the Federal Government and the Tribe and perform certain other functions relating to Tribal business. At the same time Council Delegates were paid at the rate of $3.00 per meeting day.

In 1949, the Chairman moved his residence to Window Rock and established his office at Navajo Agency. His salary was increased to $5,000 per year and Delegates increased their own compensation to $14.00 per day plus $0.07 mileage allowance. Three years later, in 1952, the salary of the Chairman was raised to $7,800 per annum, with an increase in per diem allowance from $9.00 to $14.00 per day. By this time the Chairman of the Navajo Tribal Council was well on his way to becoming a national figure, and was in wide demand both on and off the Reservation. He was a Tribal ambassador, representing Tribal interests in the national and State capitals, as well as the head of the Tribal government; he was well on his way to become the Executive Head of the Tribe—the President, instead of merely the Council Chairman.

Four years later, in 1956, the offices of Chairman and Vice Chairman had become so demanding that the salaries paid to these top Tribal officers were placed on an increasing scale for each year in office. The beginning annual salary of the Chairman was fixed at $9,000, increasing to $10,000, $12,000, and $13,500 during the remaining three years of his term in office. If he were re-elected at the expiration of his first term, his annual salary was placed at $15,000. This schedule was again revised in 1961 to provide a salary of $20,000 per annum for the Chairman, beginning with his seventh year in office.

In like manner, the salary of the Vice Chairman began at $7,000, rising to $8,000, $9,000 and $10,000 during succeeding years, and was fixed

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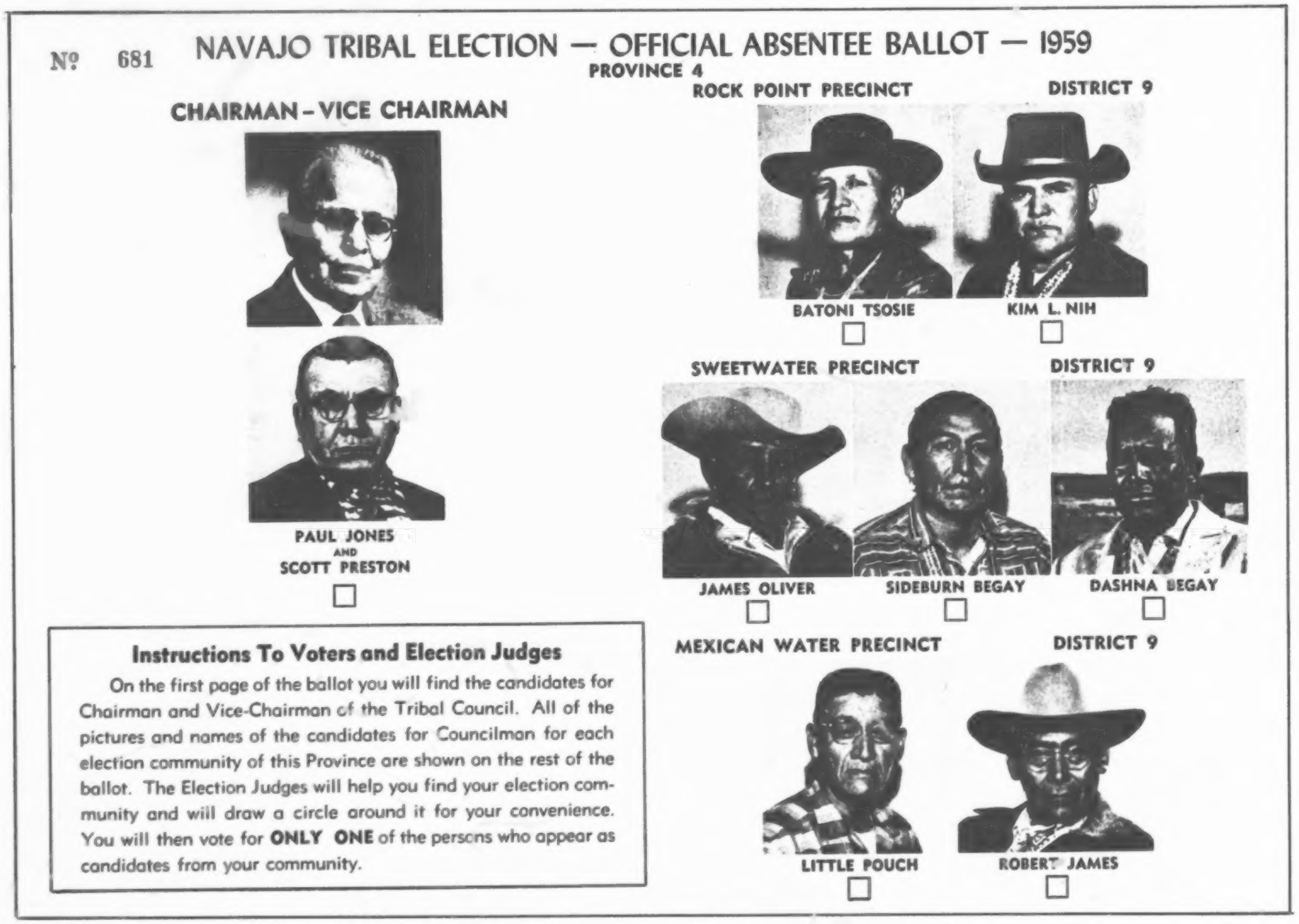
[18] See appendix to this section.



Nº 681 NAVAJO TRIBAL ELECTION — OFFICIAL ABSENTEE BALLOT — 1959

PROVINCE 4

CHAIRMAN - VICE CHAIRMAN

PAUL JONES
AND
SCOTT PRESTON
☐

ROCK POINT PRECINCT **DISTRICT 9**

BATONI TSOSIE ☐

KIM L. NIH ☐

SWEETWATER PRECINCT **DISTRICT 9**

JAMES OLIVER ☐

SIDEBURN BEGAY ☐

DASHNA BEGAY ☐

MEXICAN WATER PRECINCT **DISTRICT 9**

LITTLE POUCH ☐

ROBERT JAMES ☐

Instructions To Voters and Election Judges

On the first page of the ballot you will find the candidates for Chairman and Vice-Chairman of the Tribal Council. All of the pictures and names of the candidates for Councilman for each election community of this Province are shown on the rest of the ballot. The Election Judges will help you find your election community and will draw a circle around it for your convenience. You will then vote for **ONLY ONE** of the persons who appear as candidates from your community.

The ballot used in Tribal elections was adopted by the Council in 1950.

at $11,000 if he were re-elected to office. In 1961, the Vice-Chairman's salary was fixed at $13,000 per annum from and after his seventh year in office. At the same time, the compensation of Delegates rose to $32.00 per day, including salary at $20.00 and per diem at $12.00, and in 1960, these rates were raised to $24.00 salary and $16.00 per diem for a total of $40.00 per meeting day.

During the same period of time (1940-1960) the number of days during which the Council is in session has increased from perhaps 4 to approximately 100 days per year. A resolution adopted in 1951 required a minimum of four quarterly meetings of the Council each year.

It was not until 1950, with passage of the Navajo-Hopi Rehabilitation Act (P.L. 474-81st Congress) that the Navajo Tribal Council was authorized by Congress to appropriate and expend, with the approval of the Secretary of the Interior, Tribal funds on deposit in the Treasury of the United States. Section 7 of the Act cited above provides that "notwithstanding any other provision of existing law, the Tribal funds now on deposit or hereafter placed to the credit of the Navajo Tribe of Indians in the United States Treasury shall be available for such purposes as may be designated by the Navajo Tribal Council and approved by the Secretary of the Interior." Since that time the Tribe has prepared an annual budget to provide funds for the operation of the Tribal Government and its many programs and activities.

With formalization of the Tribal Government in 1959, there emerged three distinct Branches: the Executive, Legislative and Judicial, along with clear definitions of the duties and functions of Tribal officers and employees[10]. These were approved by the Council on August 6, 1959. Since the organizational chart and functional statements merely formalized what already existed functionally, no Secretarial approval was necessary.

The modern Tribal Council - about 1958.

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[10] The organizational chart and functional statements were prepared by Mr. G. Warren Spaulding, then (1958-59) employed by the Tribe as a Management Consultant.

The development of the Navajo Tribal Government has been especially rapid in the past decade, and this growth perhaps owes itself to four principal factors:

1. The development of a policy in the late 1940's and early 1950's by the Federal Government, designed to encourage Indian Tribes to assume a greater share of the responsibility for the management of their own affairs, including the financing of desired resource development and community services programs to the extent that Tribal funds permitted. This was an aspect of a controversial policy aimed at the ultimate termination of special Federal services to Indians, but its application created an especially favorable climate for the growth of Tribal self-government, partly as a defensive mechanism.
2. The availability of Tribal funds, and Congressional authorization (P. L. 474-81st Congress, Sec. 7) for the appropriation and expenditure of those funds by the Tribal government, with the approval of the Secretary of the Interior. The great upsurge in tribal program since 1957 is based on this power plus the development of new oil and gas fields on the Reservation, with an enormous increase in Tribal income from lease bonuses and royalties.
3. The development, since 1947, of a Tribal legal staff which has helped the Council identify and take the fullest advantage possible of the residual sovereign powers which remain vested in the Tribe.
4. The desire on the part of the Navajo Tribe to operate Reservation programs independently of the Federal and State Governments to the greatest extent possible.

An important adjunct to the development of the Tribal government was the creation of the now numerous Council Committees, of which the most active and powerful is the Advisory Committee, functionally an Executive Committee, to which the Council has delegated certain specific functions and authorities.

The 1938 "Rules" provided for continuation of the Executive Committee to handle "matters of lesser importance," and the Committee was to be composed of Chief Delegates, of which one was to be designated to represent each district. However, the delegates elected on September 24, 1938 failed to act to choose the necessary Chief Delegates and the Executive Committee was not activated. The part played by a former committee of the same name in approving the grazing regulations had led the Navajo people to reject its continuation.

On December 16, 1942, an abortive attempt was made to re-establish the Executive Committee, with its membership to be appointed by the Chairman on the basis of one member for each land management district, and with the scope of its activities limited to matters exclusive of Tribal oil and gas, minerals, timber and grazing regulations. The proposal was tabled without action by the Council.

It was not until November 5, 1947, that the need for establishment of a Council Committee became so compelling that the creation of a General Advisory Committee, composed of nine members, was approved. It was to convene at the call of the Chairman to consider any and all matters that might be presented to it. This was a period of post-war readjustment and one of great planning activity leading up to the Krug Report and the Navajo-Hopi Rehabilitation Act. It was necessary, from time to time, that Tribal representatives travel to Washington to participate in conferences and hearings on behalf of the Tribe. The name of the

Committee was changed to "Advisory" and the Council voted unanimously to establish it on this basis, despite the fact that it was functionally **executive** in nature.

The newly established Council committee filled an immediate need in view of the lapses of time between Council sessions, and almost immediately the Tribal Governing Body began to delegate authorities and functions to the Advisory Committee.

Some of the more important authorities, directly or indirectly, delegated to the Advisory Committee by the Council, are summarized below:

1948	Designated as Tribal Credit Committee.
1949	Authorized to take final action on applications from Navajo Indians seeking business enterprise sites on Tribal land.
1949	Authorized to act with the full authority of the Council in determining the use of federal loan funds for economic development purposes.
1953	Authorized to establish homesites.
1953	Authorized to negotiate for the purchase of land.
1953	Authorized to grant easements, leases and licenses on Tribal land owned in fee simple.
1954	Authorized to negotiate and grant leases, permits and licenses for the use of Tribal land for business purposes.
1955	Authorized Chairman with concurrence of Advisory Committee to withdraw Tribal lands for use by the Bureau of Indian Affairs or U. S. Public Health Service.
1956	Authority of Committee to lease Tribal lands was enlarged to include other than business leases (i.e. includes mission sites, residential areas, etc.)
1956	Authorized Chairman, with Committee concurrence, to enter into a contract for oil and gas development on the Reservation (Delhi-Taylor).
1956	Authorized Chairman, with Committee concurrence, to submit to Congress any amendments to the Navajo-Hopi Rehabilitation Act that may from time to time be in the best interest of the Tribe, and take any steps necessary to secure enactment.
1957	Authorized Chairman, with concurrence of Committee, to revise oil and gas leasing regulations in any manner which, from time to time, may appear to be in the best interest of the Tribe.
1957	Authority delegated to Committee to authorize the advertisement of Tribal lands for oil and gas leasing purposes.
1957	Required Committee approval for the hiring of any Tribal employee whose salary exceeds $6,000 per annum.
1957	Authorized Committee to act with full authority of the Council in all matters relating to Tribal enterprises.
1959	Auhorized to lease Tribal lands for agricultural purposes.

The Tribal Council has usually shown itself reluctant to delegate authority to its Chairman alone to take final action on vital matters, and frequently the Executive head of the Tribe is required to obtain concurrence of the Advisory Committee before acting on specific matters of Tribal business, on which he is otherwise empowered to act by the Council. Neither the Chairman nor the Vice Chairman possesses veto powers over the actions of the Tribal Council or Advisory Committee.

The Navajo-Hopi Rehabilitation Act (P.L. 81-474, Sec. 8) required that the tribes involved be kept informed about progress achieved under the Act, and that they be afforded an opportunity to consider all plans relating to the 10-year program. To accomplish this objective, along with others, several additional Council Committees were created in 1951, including those on Administration, Engineering, Community Services, Resources, Loans and Trading.

Across the decade of the 1950's these Committees were reorganized from time to time to meet changing requirements, and at the end of the period in reference there were eleven Council Committees exclusive of the Advisory Committee. These, with their membership, are: Education (6); Health (6); Budget (14); Law and Order (5); Tribal Parks (5); Resources (6); Loan (4); Industrial Development (3); Relocation (3); Trading (3); Welfare (3). Although some of these Committees, prior to the development of organizational charts and functional statements governing the Executive Branch of the Tribal Government in 1959, actually operated certain Tribal resources and community services programs, the majority of the committees act in an advisory capacity with regard to the Tribal Council and have no powers except as the Council may delegate such in specific instances from time to time.

The programs and other activities carried on by the Navajo Tribe have grown rapidly in recent times, and the Council has become ever more active with each passing year. In many of its actions it symbolizes the hope of the Tribe that Reservation resources may prove adequate, with full development to support the entire tribal population, present and future, within their own traditional homeland. With few exceptions, the current programs of the Tribe are focused on this objective, and the events of the recent past have tended to encourage the growth of a spirit of Tribal nationalism.

Although the Navajo Tribe has the protection of neither a constitutional nor a traditional base for its Tribal government, and although the powers the Council may exercise independently are uncertain, the fact remains that the Navajo Tribe has made enormous progress in the development of a Tribal governmental organization, starting with virtually nothing only 37 years ago.

Although the Council has acted to consider a Tribal Constitution, as authorized by P.L. 81-474, the draft has never been completed or submitted to the electorate, nor has there been a demand on the part of the people that they be permitted to delineate the governmental powers they are willing that the Council exercise in their behalf. The concept of constitutional government is, of itself, somewhat difficult to grasp at present but, as education advances, the Tribe may someday act to reorganize its governing body on a constitutional basis. On the other hand, the need for such action may never be felt by the Navajo people who have incorporated into their way of life a foreign institution in the form of the Tribal Council, which has become almost tantamount to a traditional governmental mechanism today. To be sure, it is no longer looked upon as an "instrumentality of the Secretary of the Interior" as it was at an earlier date.

APPENDIX

Regulations Relating to the Navajo Tribe of Indians

A. January 7, 1923

The Navajo Indian Reservation situate in the States of Arizona, New Mexico, and Utah, being extensive in area and the number of Indians of said Navajo Tribe having rights therein being numerous and widely distributed in their habitat and in order to promote better administration of the affairs of the Navajo Tribe of Indians in conformity to law and particularly as to matters in which the Navajo Tribe at large is concerned, such as oil, gas, coal, and other mineral deposits, tribal timber, and development of underground water supply for stock purposes, etc., the following regulations are hereby prescribed and promulgated:

1. There shall be appointed one Commissioner of the Navajo Tribe who shall maintain a central or general headquarters for said tribe at a point to be designated by the Commissioner of Indian Affairs.

2. The Commissioner of the Navajo Tribe shall have general supervision over each of the superintendencies located on said reservation, and be charged with the general supervision and administration of affairs of the Navajo Tribe, and do and perform such other duties as may be directed by the Commissioner of Indian Affairs or the Secretary of the Interior.

3. There shall be created a continuing body to be known and recognized as the "Navajo Tribal Council" with which administrative officers of the Government may directly deal in all matters affecting the tribe.

4. The Navajo Tribal Council shall be constituted as follows:

A chairman and vice-chairman to be elected as hereinafter specified.

One delegate from each of the six several superintendencies within the Navajo country, to wit:

1. The San Juan jurisdiction.
2. The Western Navajo jurisdiction.
3. The Navajo jurisdiction.
4. The Pueblo Bonito jurisdiction.
5. The Leupp jurisdiction.
6. The Moqui jurisdiction.

Six alternate delegates, one from each of said jurisdictions.

5. At meetings of the Navajo Tribal Council all members, both delegates and alternates, shall be entitled to participate in all proceedings, but only the delegates and the chairman of the Tribal Council shall have the right to vote, unless in the absence of a delegate, his alternate shall act, in which case said alternate so acting shall be entitled to vote.

6. The delegates from each of the six several jurisdictions shall be bona fide Navajo Indian residents of the jurisdiction which they represent.

7. It is directed that the Indians of the said six superintendencies, respectively, shall, after thirty days' notice, and at the time and place designated and under the general direction of the Commissioner for the Navajos, be directed to elect a principal delegate and an alternate delegate.

8. In the event that the Indians of any superintendency shall fail or neglect, at the time specified, to elect a delegate and alternate delegate

as herein provided, then the Secretary of the Interior shall appoint a delegate and alternate delegate for the Indians of such superintendency, and the delegate and alternate delegate so appointed by the Secretary of the Interior shall be admitted into all meetings of the Tribal Council and be a member of said Tribal Council until such time as the Indians of such superintendency shall regularly elect a delegate and alternate delegate.

9. After such delegates and their alternates have been so elected or appointed, a convention shall be called by the Commissioner of the Navajos, on a day and place to be designated by him, said convention to consist of the six delegates and the six alternates, all of whom shall be entitled to vote in the said convention for the purpose of electing a chairman and vice-chairman of the Navajo Tribal Council.

10. At such meeting, before any other business is transacted, the delegates shall, under the direction of the Commissioner to the Navajo Indians, appoint a temporary presiding officer from among their own number and proceed by a majority vote of the delegates to the convention to elect a permanent chairman and vice-chairman of the Navajo Tribal Council.

11. The permanent chairman so elected shall be chosen from the membership of the Navajo Tribe of Indians, but shall not be one of the delegates or alternate delegates elected to the Tribal Council, and when so elected said chairman shall be a member of the Tribal Council and ex officio presiding officer of said Tribal Council. The vice-chairman, so elected, shall be chosen from amongst the delegates of the Tribal Council. The vice-chairman shall act in the absence of the chairman. The chairman and vice-chairman shall not be chosen from or belong to the same superintendency.

12. Upon the election of the chairman and vice-chairman, the said convention shall dissolve, and the first meeting of the Tribal Council be convened.

13. At all meetings of the Tribal Council the chairman, or in his absence the vice-chairman, shall preside.

14. The six delegates and the chairman of the Tribal Council shall each be entitled to one vote on all matters coming before the Tribal Council and the majority of votes cast shall be deemed the wishes of the Tribal Council on such matters.

15. The alternate delegate from each of the six superintendencies within the Navajo country shall have the right to attend all meetings of the Tribal Council and shall have the privilege of expressing their views but shall not have the right to vote on any matters requiring action by the Tribal Council unless the principal delegate from that particular superintendency be absent.

16. In the event of a vacancy of the delegate or alternate to the Tribal Council, such vacancy shall be filled by an election to be held within the superintendency for that purpose. Vacancies in the office of chairman or vice-chairman of the Tribal Council shall be filled in the same manner as provided for the original election thereof.

17. The Tribal Council shall meet at such time and place as may be designated by the Commissioner of the Navajo Tribe after due notice in writing for the consideration of such matters as may be brought before it.

18. At the request of five members of the Tribal Council, such Commissioner for the Navajo Tribe may, in his discretion, convene the council for the consideration of such matters as may be brought before it.

19. No meeting of the Tribal Council shall be had without the presence of the Commissioner for the Navajo Tribe, and such officer shall see to it that the action of the Tribal Council as finally voiced on matters brought before it are properly made of record.

20. The Secretary of the Interior reserves the right to remove any member of the Tribal Council, upon proper cause shown, and to require the election or appointment of some other delegate to take the place of the member so removed.

21. There shall be appointed by the Commissioner of the Navajo Tribe a secretary, whose duty it shall be to keep a record of the proceedings of such meetings. A certified copy of the record of the proceedings of all council meetings shall be forwarded to the Commissioner of Indian Affairs at Washington, D. C.

22. The Commissioner of the Navajo Tribe shall keep the original record of the proceedings of the Tribal Council meetings in his office.

Regulations Relating to the Navajo Tribe of Indians
B. April 24, 1923

The Navajo Indian Reservation situated in the States of Arizona, New Mexico, and Utah, being extensive in area and the number of Indians of said Navajo Tribe having right therein being numerous and widely distributed in their habitat and in order to promote better administration of the affairs of the Navajo Tribe of Indians in conformity to law and particularly as to matters in which the Navajo Tribe at large is concerned, such as oil, gas, coal, and other mineral deposits, tribal timber, and development of underground water supply for stock purposes, etc., the following regulations are hereby prescribed and promulgated:

1. There shall be designated by the Secretary of the Interior, one Commissioner to the Navajo Tribe, who shall be the agent in charge of the Navajo Reservation.

2. The Commissioner to the Navajo Tribe shall have supervision over each of the superintendencies located on said reservation, and be charged with the general supervision and administration of affairs of the Navajo Tribe, and do and perform such other duties as may be directed by the Commissioner of Indian Affairs or the Secretary of the Interior.

3. There shall be created a continuing body to be known and recognized as the "Navajo Tribal Council" with which administrative officers of the Government may directly deal in all matters affecting the tribe.

4. The Navajo Tribal Council shall be constituted as follows:

A Chairman and Vice-Chairman to be elected as hereinafter specified.

Three delegates and three alternates from the San Juan jurisdiction.

Two delegates and two alternates from the Western Navajo jurisdiction.

Four degelates and four alternates from the Navajo jurisdiction.

One delegate and one alternate from the Pueblo Bonito jurisdiction.

One delegate and one alternate from the Leupp jurisdiction.

One delegate and one alternate from the Moqui jurisdiction.

5. At meetings of the Navajo Tribal Council all members, both delegates and alternates, shall be entitled to participate in all proceedings, but only the delegates shall have the right to vote, unless in the absence of a delegate, his alternate, shall act, in which case said alternate so acting shall be entitled to vote.

6. The delegates from each of the six several jurisdictions shall be bona fide Navajo Indian residents of the jurisdiction which they represent.

7. The Indians of the said six superintendencies, after not less than 10 days notice and at the time and place designated by the Commissioner of the Navajo Tribe, shall meet for the purpose of electing the principal delegates and alternates as herein specified.

8. In the event that the Indians of any superintendency shall fail or neglect, at the time specified, to elect any delegate or alternate delegate as herein provided then the Secretary of the Interior shall appoint such delegate or alternate delegate for the Indians of such superintendency, and such delegate and alternate delegate so appointed by the Secretary of the Interior shall be admitted into all meetings of the Tribal Council and be a member of said Tribal Council until such time as the Indians of such superintendency shall regularly elect such delegate and alternate delegate.

9. After such delegates and their alternates have been so elected or appointed, a convention shall be called by the Commissioner to the Navajo Tribe on a day and place to be designated by him, said convention to consist of the delegates and the alternates, all of whom shall be entitled to vote in the said convention for the purpose of electing a chairman and vice-chairman of the Navajo Tribal Council. Two-thirds of the delegates to said convention shall constitute a quorum for the transaction of the business of said convention.

10. At such meeting, before any other business is transacted, the delegates to the said convention shall appoint a temporary presiding officer from among their own number and proceed by a majority vote of the delegates to the convention to elect a permanent chairman and vice-chairman of the Navajo Tribal Council. The presiding officer of the convention shall vote in said election only in case of a tie.

11. The permanent chairman so elected shall be chosen from the membership of the Navajo Tribe of Indians, but shall not be one of the delegates or alternate delegates elected to the Tribal Council, and when so elected said chairman shall be a member of the Tribal Council and ex officio presiding officer of said Tribal Council and entitled to vote only in case of a tie.

The vice-chairman, so elected, shall be chosen from amongst the delegates of the Tribal Council. The vice-chairman shall act in the absence of the chairman. The chairman and vice-chairman shall not be chosen from or belong to the same superintendency.

12. Upon the election of the chairman and vice-chairman, the said convention shall dissolve, and the first meeting of the Tribal Council be convened.

13. At all meetings of the Tribal Council the chairman, or in his absence the vice-chairman, shall preside.

14. Each delegate of the Tribal Council shall be entitled to one vote on all matters coming before the Tribal Council and the majority of votes cast shall be deemed the wishes of the Tribal Council on such matters. Two-thirds of the delegates to the Tribal Council shall constitute a quorum for the transaction of its business.

15. The alternate delegates from the various superintendencies within the Navajo country shall have the right to attend all meetings of the Tribal Council and shall have the privilege of expressing their views but shall not have the right to vote on any matters requiring action by the Tribal Council unless in any case any principal delegate from any particular superintendency be absent, in which case his alternate shall act in his place.

16. The terms of office of the chairman and vice-chairman of the tribal council shall be four years from the date of their election. At the expiration of each four year term a convention as herein provided for shall be called by the Commissioner to the Navajo tribe for the election of a chairman and vice-chairman of the Navajo Council.

17. In case of the death, disability, or removal during their term of office of the chairman or vice-chairman of the Navajo tribal council, the vacancy shall be filled for the unexpired term by the tribal council, or upon its failure to act, by the Secretary of the Interior. In the case of elections at the tribal council to fill the unexpired terms of the chairman or vice-chairman, the alternates shall have the right to vote for the election of such officers as in the case of the first and subsequent conventions.

18. The Tribal Council shall meet at such time and place as may be designated by the Commissioner to the Navajo Tribe after due notice in writing for the consideration of such matters as may be brought before it; such notices shall be sent to the various members of the Council through the various superintendents who shall see to it that such notices are delivered and acceptance of such delivery recorded.

19. No meeting of the Tribal Council or of any regular convention of the tribe shall be had without the presence of the Commissioner to the Navajo Tribe, and such officer shall see to it that the action of the Tribal Council or of the convention as finally voiced on matters brought before them are properly made of record.

20. There shall be appointed by the Commissioner to the Navajo Tribe, a secretary, whose duty it shall be to keep a record of the proceedings of all meetings. A certified copy of the proceedings of all such meetings shall be forwarded to the Commissioner of Indian Affairs at Washington, D. C.

21. There shall be designated by the Commissioner to the Navajo Tribe for each meeting of the Navajo Council or of the convention one or more interpreters who shall be the official interpreters for said meetings. The proceedings as so interpreted by said interpreters and recorded by the Secretary, shall be the official proceedings of the said meetings.

22. The Commissioner to the Navajo Tribe shall keep the original record of the proceedings of the Tribal meetings and of the conventions in his office.

Amendments to the regulations relating to the Navajo Tribe of Indians approved April 24, 1923.

C. April 20, 1927

4. The Navajo Tribal Council shall be constituted as follows:

A chairman and vice-chairman to be elected as hereinafter specified.

Three delegates and three alternates from the Northern Navajo jurisdiction.

Two delegates and two alternates from the Western Navajo jurisdiction.

Four delegates and four alternates from the Southern Navajo jurisdiction.

One delegate and one alternate from the Eastern Navajo jurisdiction.

One delegate and one alternate from the Leupp jurisdiction.

One delegate and one alternate from the Hopi jurisdiction.

16. The terms of office of the delegates and alternate delegates to the Tribal Council, and of the chairman and vice chairman shall be five years. The terms of the first elected delegates, alternates and officers shall expire on July 7, 1928. At the expiration of each five year term, a convention as herein provided for shall be called by the Commissioner to the Navajo Tribe for the election of a chairman and vice chairman of the Navajo Council. During the year prior to the expiration of each five year term, the principal delegates and alternates for the succeeding term shall be elected as provided for in Section 7 of these regulations.

17. In case of the death, disability, or removal during their term of office of the chairman or vice chairman of the Navajo Tribal Council, the vacancy shall be filled for the unexpired term by the Tribal Council, or upon its failure to act, by the Secretary of the Interior. In the case of elections at the Tribal Council to fill the unexpired terms of the chairman or vice chairman, the alternates shall have the right to vote for the election of such officers as in the case of the first and subsequent conventions. In case of death, disability, resignation, or removal during their term of office of any principal delegate or alternate delegate of the Navajo Tribal Council, the vacancy shall be filled by the Indians of the jurisdiction in which such vacancy occurs, upon call of the Superintendent of such jurisdiction, or upon failure to so act, by the Secretary of the Interior. Such elections to fill vacancies shall be submitted for approval to the Secretary of the Interior with the recommendation of the Commissioner to the Navajo Tribe.

Regulations Relating to the Navajo Indian Tribal Council
D. October 15, 1928

The Navajo Indian Reservation situated in the States of Arizona, New Mexico, and Utah, being extensive in area and the number of Indians of the Navajo tribe having rights therein being numerous and widely distributed in their habitat, and in order to promote better administration of the affairs of the Navajo tribe in conformity to law and particularly as to matters in which the tribe at large is concerned such as oil, gas, coal and other mineral deposits, tribal timber and development of underground water supply for stock purposes, etc. the following regulations are hereby prescribed and promulgated:

(I) The Navajo Tribal Council shall be constituted as follows: a Chairman and Vice Chairman to be elected as hereinafter specified; three delegates and three alternates from the Northern Navajo jurisdiction; four delegates and four alternates from the Southern Navajo jurisdiction; two delegates and two alternates from the Western Navajo jurisdiction; one delegate and one alternate from th Eastern Navajo jurisdiction; one delegate and one alternate from the Leupp jurisdiction; one delegate and one alternate from the Hopi jurisdiction.

(2) At the meeting of the Navajo Tribal Council all members, both delegates and alternates shall be entitled to participate in all proceedings but only the delegates shall have the right to vote unless in the absence of a delegate his alternate shall act, in which case said alternate so acting shall be entitled to vote.

(3) The delegates from each of the six above mentioned jurisdictions shall be bona fide Navajo Indian residents of the jurisdiction which they represent.

(4) The election of principal delegates and alternates shall be held at such time and place as may be designated by the superintendents of the several Navajo agencies when instructed by the Commissioner of Indian Affairs, after not less than ten days notice by each superintendent to the Indians under his jurisdiction. Both men and women members of the Navajo tribe, bona fide residents of the jurisdiction, of the age of 21 years or over, shall have the right to vote in such elections.

(5) In the event that the Indians of any superintendency shall fail or neglect at the time specified to elect any delegate or alternate delegate as herein provided, then, the Commissioner of Indian Affairs shall appoint such delegate or alternate delegate for the Indians of such superintendency and such delegate or alternate delegate so appointed shall be admitted into all the meetings of the Tribal Council and be a member of such council until such time as the Indians of such superintendency shall regularly elect such delegate and alternate delegate.

(6) After such delegates and alternates have been so elected or appointed, a council shall be called by the Commissioner of Indian Affairs on a day and at a place to be designated by him, said council to consist of the delegates and their alternates, all of whom shall be entitled to vote in the said council for the purpose of electing a Chairman and Vice Chairman of the Navajo Tribal Council. A majority of the delegates of said council shall constitute a quorum for the transaction of business.

(7) The Chairman so elected shall be chosen from the membership of the Navajo tribe of Indians and when so elected said Chairman shall be a member of the Tribal Council and entitled to vote only in case of a tie. The Vice Chairman so elected shall be chosen from among the delegates of the Tribal Council. The Vice Chairman shall act in the absence of the Chairman. The Chairman and Vice Chairman shall not be chosen from or belong to the same superintendency.

(8) Each delegate to the Tribal Council shall be entitled to one vote on all matters coming before the Tribal Council and the majority of votes cast shall be deemed the wishes of the Council on such matters. A majority of the delegates to the Tribal Council shall constitute a quorum for the transaction of business.

(9) The alternate delegates from the various superintendencies within the Navajo country shall have the right to attend all the meetings of the Tribal Council and shall have the privilege of expressing their views but shall not have the right to vote on any matters requiring action by the Tribal Council unless in any case any principal delegate from a particular superintendency be absent, in which case his alternate shall act in his place.

(10) The terms of office of the delegates and alternates, delegates to the Tribal Council and of the Chairman and Vice Chairman, shall be four years.

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(11) In case of death, disability, or removal during their term of office of the Chairman or Vice Chairman of the Navajo Tribal Council, the vacancy shall be filled for the unexpired term by the Tribal Council, or upon its failure to act by the Commissioner of Indian Affairs. In case of elections in the Tribal Council to fill the unexpired terms of the Chairman or Vice Chairman, the alternates shall have the right to vote for the election of such officers. In case of death, disability, resignation, or removal during their term of office of any principal delegate or alternate delegate of the Navajo Tribal Council, the vacancy shall be filled by the Indians of the jurisdiction in which such vacancy occurs upon call of the Superintendent of such jurisdiction, or upon failure to so act, by the Commissioner of Indian Affairs. Such elections to fill vacancies shall be reported to the Commissioner of Indian Affairs by the Superintendent of the jurisdiction where the vacancy is to be filled, with his recommendation and his report, and the election approved before it shall become effective.

(12) The Tribal Council shall meet for the consideration of such tribal matters as may be brought before it at such time and place as may be designated by the Commissioner of Indian Affairs. Written notice of the meeting shall be sent to the various members of the Council and their alternates by the superintendents of the several jurisdictions, who shall see to it that such notices are delivered and acceptance thereof recorded.

(13) No meeting of the Tribal Council shall be held without the presence of an official of the Government designated by the Commissioner of Indian Affairs; and such official shall see to it that the action of the Tribal Council as finally voiced on matters considered are properly made of record. There shall be appointed by such designated official a Secretary, whose duty it shall be to keep a record of the proceedings of all meetings. A certified copy of the proceedings of all such meetings shall be furnished each superintendent of a Navajo jurisdiction, and each member of the Tribal Council shall be entitled to a copy thereof, and the original record of the proceedings shall be forwarded to the Commissioner of Indian Affairs.

(14) The official of the Government designated by the Commissioner of Indian Affairs to attend the meeting of the Tribal Council shall designate one or more interpreters who shall be the official interpreters of said meetings. The proceedings as so interpreted by said interpreters and corded by the Secretary shall be the official proceedings of such meetings when approved by the official of the Government designated by the Commissioner of Indian Affairs to preside at said Council.

Proposed Constitution of the Navajo Tribe
E. October 25, 1937

In order to establish a tribal government and to promote the spiritual, social, and economic welfare of the Navajo people, this Navajo Constitution is proclaimed for the Navajo people.

Article I

SECTION 1. The Constitution of the United States of America with amendments thereto, and all Acts of Congress applicable to the Navajo affairs, including the Treaty of 1868 between the Government and the Navajos, shall be the laws of the Navajo Tribe.

Article II

SECTION 1. Every Navajo, who resides on the Navajo Reservation or individual trust allotment, and is enrolled on the tribal census, and every individual who is at least one-quarter (1/4) degree of Navajo blood and enrolled on the tribal census, shall be considered a member of the Navajo tribe.

SECTION 2. No person shall be eligible for adoption into the Navajo Tribe unless he or she meets any of the qualifications provided for in the preceding section.

Article III

SECTION 1. Not inconsistent with any authority of the Federal Government or with any state laws, the jurisdiction of the Navajo Tribe and of the Navajo Council shall extend to the entire area within the outside boundaries of the existing reservation and to all trust allotments without such boundaries and to any area that may be added to the reservation pursuant to or by any Act of Congress.

Article IV

SECTION 1. The governing body of the Navajo Tribe shall be the Navajo Council.

SECTION 2. The Navajo Council shall consist of twenty delegates at large and fifty-four delegates, apportioned among the several land management districts as follows:

District No. 1, one delegate at large and two delegates;
District No. 2, one delegate at large and two delegates;
District No. 3, one delegate at large and three delegates;
District No. 4, one delegate at large and four delegates;
District No. 5, one delegate at large and two delegates;
District No. 7, one delegate at large and three delegates;
District No. 8, one delegate at large and three delegates;
District No. 9, one delegate at large and three delegates;
District No. 10, one delegate at large and three delegates;
District No. 11, one delegate at large and two delegates;
District No. 12, one delegate at large and four delegates;
District No. 13, one delegate at large and two delegates;
District No. 14, one delegate at large and three delegates;
District No. 15, one delegate at large and three delegates;
District No. 16, one delegate at large and two delegates;
District No. 17, one delegate at large and five delegates;
District No. 18, one delegate at large and five delegates;
District No. 19, one delegate at large and three delegates;
Canoncito, one delegate at large; and
Puertocito, one delegate at large.

PROVIDED that the Navajo Council may change its membership to correspond with any increase that may occur in the population of any districts not exceeding one delegate for every six hundred Navajos.

SECTION 3. A delegate shall hold office for a term of six years which shall begin at noon on the first day of August of the year of his election, provided that the terms of office of the first members of the Navajo Council shall be determined by the Constitutional Assembly.

SECTION 4. No person shall be eligible for the office of a delegate unless he is a member of the Navajo Tribe, has attained the age of thirty (30) years or over, not exceeding seventy (70) years, has resided upon the reservation or upon restricted allotment for a period of five years and in the election precinct for a period of one year next preceding the election.

SECTION 5. No member of the Navajo Tribe holding any permanent position or employment under the authority of the United States or any State shall be a member of the Navajo Council.

SECTION 6. Any member of the Navajo Council who acquires membership in any organization or who acquires any position or employment for the purpose of influencing the Navajo Council may be removed from the Navajo Council, upon proof thereof, by two-thirds (2/3) affirmative vote of the members of the Navajo Council.

SECTION 7. If from any cause a vacancy should occur in the office of any delegate, the Navajo Council, or its authorized agency shall order an election of a successor for the unexpired term of office.

Article V

SECTION 1. The Executive Committee of the Navajo Council shall consist of the President of the Navajo Tribe and the delegates at large as apportioned among the several land management districts including the Canoncito and Puertocito areas.

SECTION 2. The President of the Navajo Tribe shall be Chairman of the Executive Committee.

SECTION 3. No measure shall be considered by the Navajo Council unless it was first passed upon by the Executive Committee.

Article VI

SECTION 1. There shall be one president of the Navajo Tribe and he shall hold office for a term of six years, provided that no person shall serve as president for more than two terms.

SECTION 2. It shall be the duty of the president to take part in the sessions of the Navajo Council, to make recommendations to the Navajo Council, to advise and assist the government on any action or policy adopted by the Navajo Council, and to exercise any authority that may be vested in him by the Navajo Council.

SECTION 3. There shall be one vice-president of the Navajo Tribe, and he shall hold office for a term of six years, provided that no person shall serve as vice-president for more than two terms.

SECTION 4. It shall be the duty of the vice-president to preside over the sessions of the Navajo Council, and to exercise any authority that may be vested in him by the Navajo Council.

SECTION 5. No person shall be eligible for president or vice-president of the Navajo Tribe unless he is a member of the tribe, has attained the age of thirty-five years or over, not exceeding sixty-five years, and has resided upon the Navajo Reservation for a period of five years next preceding the election.

SECTION 6. No person holding any position or employment under the authority of the United States, or of any State, shall be president, or vice-president, of the Navajo Tribe.

SECTION 7. If from any cause a vacancy should occur in the office of the president, the vice-president shall become president of the Navajo Tribe for the unexpired portion of the term of office.

SECTION 8. If from any cause a vacancy should occur in the office of the vice-president, the Navajo Council shall appoint a successor for the unexpired portion of the term of office.

Article VII

SECTION 1. The election of president and vice-president of the Navajo Tribe, delegates of the Navajo Council, and any officer that may be elective, shall be governed by the By-Laws of the Navajo Council.

SECTION 2. Any member of the Navajo Tribe, who has attained the age of 21 years or over and has resided on the Navajo Reservation or on an individual trust allotment for at least one year next preceding the election shall have the right to vote in any election, except insane persons, idiots, persons under legal guardianship, and persons convicted of a felony and have not been restored to political rights.

Article VIII

SECTION 1. Any delegate, who is accused of willfully misrepresenting or misinterpreting any measure or policy of the Navajo Council or accused of improper conduct or gross neglect of duty, shall be served with written charges against him at least thirty days before the date of the hearing set by the Navajo Council, and at the hearing, which shall be fair and complete, if the charges are proven, the accused may be expelled from the Council by the affirmative vote of two-thirds (2/3) of the members of the Navajo Council.

Article IX

SECTION 2. It shall be the permanent policy of the Navajo Council to preserve and promote the Navajo clan system of family and social organization; to protect and conserve tribal property, natural resources, and wildlife on the Navajo Reservation; to cultivate Indian arts, crafts, and the best traditions and culture; to assist in administering charity; to protect and promote health, security, human and civil rights, and general welfare of the Navajo Tribe and members thereof.

Article X

SECTION 1. The Navajo Council shall have the following powers:

(a) To approve or veto any sale, disposition, lease, or encumbrance of tribal lands or tribal assets which may be authorized or executed by the Secretary of the Interior, the Commissioner of Indian Affairs, or any other agency of the Government provided that no tribal lands shall be leased or encumbered in any way for a period in excess of five years, except for rights of way for highways or roads, telephone, telegraph, power, and pipe lines, and for governmental purposes, which may be granted for a longer period than five years.

(b) To approve or veto permits that may be granted for the establishment of religious missions on the Reservation.

SECTION 2. The Navajo Council, in cooperation with the Government and subject to the approval of the Secretary of the Interior, shall have the following powers:

(a) To regulate the uses and disposition of tribal property; to protect, conserve, and promote tribal lands, natural resources, and wildlife on the Navajo Reservation; to regulate and promote Indian arts, crafts, traditions, and culture; to assist in the administration of charity; to protect and promote health, security, human and civil rights, and the general welfare of the Navajo Tribe and members thereof.

(b) To cooperate with the Government in the enforcement of existing grazing regulations as promulgated by the Secretary of the Interior. If at any time the land management districts are found to be impractical and existing grazing regulations can be modified, the Navajo Council shall suggest such changes to the Secretary of the Interior.

(c) To cooperate with the Government in the enforcement of hunting, fishing, and wildlife regulations as promulgated by the Secretary of the Interior.

(d) To regulate and control trading posts and trading practices on the reservation; and to regulate, assess, and collect license fees for the privilege of trading and engaging in trading practices on the reservation.

(e) To employ legal counsel for the protection and advancement of the rights of the Navajo Tribe and members thereof.

(f) To levy dues, fees, and taxes on members of the Navajo Tribe and upon any property or property right of members of the tribe within the reservation and other areas under the jurisdiction of the Navajo Council.

(g) To adopt, promulgate, and enforce ordinances governing the conduct of members of the Navajo Tribe; and to provide for the maintenance of law and order and the administration of justice; and to establish Indian Courts and to define their powers and duties.

(h) To regulate the domestic relations of members of the Navajo Tribe not otherwise provided for under any law.

(i) To regulate the inheritance of real and personal property, other than allotted lands, within the reservation and other areas under the jurisdiction of the Navajo Council.

(j) To create offices, committees, commissions, boards, associations, and local district councils, and to define their powers and duties, and to make any provisions that may be deemed necessary in exercising this power.

(k) To provide for the compensation of the president, vice-president, delegates of the Navajo Council, and other officials of the Council or tribe for their services.

SECTION 3. In cooperation with the Government and subject to the approval of the Secretary of the Interior, the Navajo Council or the Executive Committee may exercise the following powers:

(a) To acquire by purchase or otherwise any property or property right of any member of the Navajo Tribe and others on or off the Navajo Reservation.

(b) To acquire by right of eminent domain any property or property right of any member of the Navajo Tribe and others within the Navajo Reservation.

(c) To provide and administer a revolving fund, from tribal funds and other sources, for the establishment of better housing facilities for the families of any members of the Navajo Tribe.

(d) To provide and maintain funds, from tribal and other funds or property, for the education and support of Navajo boys and girls in universities, colleges, and other educational institutions.

(e) To establish and maintain tribal sawmills, flour mills, and other tribal business enterprises, and to provide the necessary funds for such purposes.

(f) To negotiate with the Federal, State, and local government on behalf of the Navajo Tribe, and to advise and consult with the representatives of the Department of the Government of the United States on all matters affecting the affairs of the Navajo Tribe.

(g) To protect and control all prehistoric, archaeological, and other sites or scenic, or scientific interests on the Navajo Reservation not under the control of the National Park Service.

(h) To provide for the care and guardianship of orphans, incompetents, and minor members of the Navajo Tribe, and for this purpose to recommend the use and administration of tribal and other funds or property.

(i) To create tribal funds from any source not inconsistent with the laws of the United States or rules and regulations of any Department of the Federal Government and to provide for its maintenance and administration.

(j) To act upon all matters affecting the affairs of the Navajo Tribe and members thereof.

(k) To transact and manage all the business affairs of the Navajo Tribe.

(l) To adopt measures, resolutions, or ordinances in exercising any of the powers provided for in this Constitution.

SECTION 4. The Superintendent shall have the power to bar any person who is not a member of the Navajo Tribe from entering the Reservation and to exclude and remove any such person from the Reservation whenever in his judgment the public interest or the welfare of any Navajo or Navajos or the Tribe justifies such action. However, the Navajo Council may by a majority vote over-rule such action of the Superintendent and thereby permit any such person to enter the reservation or remain therein.

SECTION 5. Any measure or resolution or ordinance adopted by the Navajo Council or the Executive Committee shall take effect as soon as approved by the Secretary of the Interior.

Article XI

SECTION 1. The Navajo Reservation with its surface and sub-surface natural resources shall remain tribal property.

SECTION 2. Hereafter no land of the Navajo reservation, created or set apart by treaty or agreement with the Navajo Tribe, Act of Congress, Executive Order, purchase, or otherwise, shall be allotted in severalty to any member of the tribe.

SECTION 3. Any tract of land, under any irrigation project developed with government or tribal funds, may be assigned by the Superintendent of the Navajo Service, with the approval of the Navajo Tribal Council, to any landless member of the tribe, who does not own any range livestock, under such terms and conditions as may be required by the Navajo Council.

SECTION 4. Any tract of land, approved by the government to be suitable for dry farming, may be assigned by the Superintendent of the

Navajo Service, with the approval of the Navajo Council, to any member of the tribe under such terms and conditions as may be required by the Navajo Council.

SECTION 5. Any assignment of land made under the preceding sections shall be cancelled by the Navajo Council, if it is shown by competent evidence in a public hearing before the Navajo Council, or its authorized agency, that the assignee had failed to cultivate and otherwise improve his assigned land for a period of two years.

SECTION 6. Upon the decease of the assignee, his heirs shall have the first preference for the reassignment of the land which was under his assignment at the time of his death.

SECTION 7. Various tracts of land cultivated and otherwise improved for agricultural purposes by individual members of the Navajo Tribe prior to the adoption of this constitution, shall not be affected by the provisions of the preceding sections unless sold or voluntarily surrendered to the tribe, or abandoned. Failure to cultivate or otherwise improve the land for a period of two years shall be considered an abandonment of the land.

SECTION 8. No grazing land shall be fenced for the exclusive use of any member of the tribe; and any grazing land now under fence for the exclusive use of any member of the tribe shall be subject to the right of eminent domain of the tribe.

SECTION 9. Any agricultural land held by any member of the tribe in excess of forty acres in area shall be subject to taxation by the Navajo Council, provided that the taxation shall not exceed one dollar ($1.00) per acre for every acre held in excess of forty acres.

Article XII

SECTION 1. Any restricted allotment of land heretofore made to any member of the tribe on or off the Navajo Reservation shall remain in the individual ownership of the allottee unless sold or otherwise disposed of by the allottee to the tribe.

SECTION 2. The tribe shall have the first preference right, and any individual member of the tribe shall have the second preference right, to lease any restricted allotment of land for grazing or other purposes at a reasonable rate of annual compensation to the allottee.

SECTION 3. After the tribe and any member thereof have waived their preference rights, any restricted allotment of land may be leased by the allottee to anyone or any organization for any lawful purpose under the supervision of the Navajo Council.

Article XIII

SECTION 1. The right to prospect or explore for any deposits of silver, copper, gold, and other metalliferous minerals on any tribal land may be granted by the Navajo Council under such terms and restrictions as may be required by the Council not inconsistent with any mining laws of the Federal Government.

SECTION 2. The right to mine or otherwise take coal from any deposits of coal on any tribal land, classified by the government to be suitable for mining, may be granted by the Navajo Council to capable coal operators and miners under such terms and restrictions as may be required by the Council not inconsistent with any mining laws of the Federal Government.

Article XIV

SECTION 1. All water rights to any stream, natural spring, lake, reservoir, pond, water-hole, well, and all water supplies developed with government or tribal funds, upon the Navajo Reservation, shall remain tribal property.

SECTION 2. All power sites on the Navajo Reservation shall remain tribal property.

Article XV

SECTION 1. The Navajo Council whenever it deems it necessary, shall propose amendments to this Constitution, which shall be valid as part of this Constitution, when ratified by the affirmative vote of a majority of the eligible voters of the Navajo Tribe and approved by the Secretary of the Interior.

F. July 26, 1938

CHAPTER I

HOW THE TRIBAL COUNCIL IS SET UP

SECTION 1. The Tribal Council shall be the governing body of the Navajo Tribe.

SECTION 2. The Tribal Council shall consist of 74 delegates.

SECTION 3. The 74 members of the Tribal Council shall be elected by the people of the several districts in accordance with the population of each district.

SECTION 4. Canoncito District and Puertocito District and Ramah District shall each elect one delegate.

SECTION 5. Districts 2, 5, 11, 13, 16 and 19 shall each elect three delegates.

SECTION 6. Districts 1, 3, 4, 7, 8, 9, 10, 14 and 15 shall each elect four delegates.

SECTION 7. District 12 shall elect five delegates.

SECTION 8. Districts 17 and 18 shall each elect six delegates.

SECTION 9. Each delegate shall serve for a term of four years.

SECTION 10. No person shall serve as a delegate unless he or she is a member of the Navajo Tribe above the age of 30.

SECTION 11. No person shall serve as a delegate if he is in the permanent employment of the United States except as a judge, interpreter, teacher, or Indian Assistant, or if he is in the employment of any State or any private employer with business interests on the Navajo Reservation. (See Amendment, Order No. 1912, attached.)

SECTION 12. If any delegate, after his election enters such employment he shall immediately resign his office.

SECTION 13. If any delegate is unable to attend the meetings of the Tribal Council for one year, he shall immediately resign his office.

SECTION 14. If any delegate fails to resign his office in accordance with these rules, a notice shall be sent him and he shall be given a chance to come before the Tribal Council and show cause why he should not resign.

SECTION 15. When the accused delegate has been heard, the Council shall vote on his case, and if two thirds of the votes are cast for his removal, he shall be removed from office.

SECTION 16. In the same manner, a delegate may be removed if he misrepresents the action of the Tribal Council, or accepts any bribe, or commits any act of disloyalty toward the Tribal Council.

SECTION 17. If any vacancy arises in the Council, the Council shall order the people to elect another delegate to serve the remainder of the term.

CHAPTER II

HOW THE EXECUTIVE COMMITTEE IS SET UP

SECTION 1. The delegates of each district shall choose one among them as chief delegate; if they cannot agree among themselves, the Chairman of the Tribal Council shall make the choice.

SECTION 2. All the chief delegates shall compose the Executive Committee.

SECTION 3. The Executive Committee shall act in the place of the Tribal Council between the meetings of the Tribal Council.

SECTION 4. The Executive Committee shall refer all matters of very great importance to the Tribal Council, but matters of lesser importance the Executive Committee shall act upon in its own discretion.

CHAPTER III

HOW THE OFFICES OF THE TRIBAL COUNCIL ARE SET UP

SECTION 1. There shall be one Chairman of the Navajo Tribal Council, and he shall hold office for a term of four years.

SECTION 2. When the Chairman of the Tribal Council has served four years, he may be elected for a second term, but he may not be elected for a third term.

SECTION 3. The Chairman of the Navajo Tribal Council may yield the chair to the Vice-Chairman in order to take part in the sessions of the Tribal Council. He may make recommendations and appoint committees. He shall be the Chairman of the Executive Committee, and he may advise and assist the Government on any action or policy adopted by the Tribal Council.

SECTION 4. There shall be one Vice-Chairman of the Navajo Tribal Council, and he shall hold office for a term of four years.

SECTION 5. When the Vice-Chairman of the Navajo Tribal Council has served four years, he may be elected for a second term, but he may not be elected for a third term.

SECTION 6. The Vice-Chairman of the Navajo Tribal Council shall serve as Chairman of the Navajo Tribal Council when the Chairman is unable to perform his duties.

SECTION 7. No person shall serve as Chairman or as Vice-Chairman of the Navajo Tribal Council unless he is a member of the Tribe, 35 years old or older.

SECTION 8. No person shall serve as Chairman or Vice-Chairman of the Navajo Tribal Council unless he has during the last three years before the time of election lived on the land of the Navajos, that is to say, on tribal or allotted land within the boundaries of the Navajo Reservation, or on land of a restricted allotment or homestead, or on purchased or exchanged land or on public domain outside of said exterior boundaries, or in the immediate vicinity of the reservation, and in the case of such non-resident that he has participated continuously and actively in the affairs of the tribe for the three years prior to his taking office. The Tribal Council shall, by majority vote, decide whether such continuous active participation in tribal affairs on the part of the candidate has taken place and shall so certify.

SECTION 9. A Chairman or Vice-Chairman may be removed from office for the same causes and in the same manner as a delegate may be removed from office.

SECTION 10. If a vacancy should occur in the office of Chairman or Vice-Chairman, the Tribal Council shalll appoint a member of the Council as successor to serve the remainder of the term.

CHAPTER IV
HOW THE TRIBAL COUNCIL IS ELECTED

SECTION 1. Elections shall be held not less than 20 days nor more than 40 days before the end of the Council's four-year term, at such time and places as may be designated by the General Superintendent acting under instructions from the Commissioner of Indian Affairs.

SECTION 2. All members of the tribe over 21 years of age shall be entitled to vote.

SECTION 3. At least 30 days before the election date, the District Supervisor shall require the qualified voters in each election community in his district, at a general meeting called for that purpose, to nominate not more than three qualified candidates for the office of delegate from the election community.

SECTION 4. At such meeting each voter may cast one vote, and the three persons receiving the largest number of votes shall be considered candidate for delegate from the election community.

SECTION 5. At this same meeting there shall be elected in the same manner not more than three election judges to serve at the community polling place in the general election.

SECTION 6. At this same nomination meeting, each candidate will draw for the color which will designate his ballot.

SECTION 7. All candidates for delegates and election judges shall be certified to the General Superintendent by the District Supervisor not later than ten days after the nominations take place.

SECTION 8. The General Superintendent shall cause to be posted in public places, in each election community, its certified candidates for Tribal delegate, and the color of each candidate's ballot.

SECTION 9. The General Superintendent shall cause to be sent to the polling place in each community ballots and ballot boxes.

SECTION 10. Voting shall commence at each designated polling place at 7:00 a.m. and end at 6:00 p.m.

SECTION 11. It shall be the duty of the election judges to guard the polling places, to pass on the eligibility of voters, and to count the ballots at the close of voting.

SECTION 12. It shall be the specific duty of the election judges receiving the largest number of votes to issue the ballots.

SECTION 13. A government representative designated by the District Supervisor shall be present at each community polling place to act as referee and assistant to the judges.

SECTION 14. The election judges or the Government representatives shall not influence any voter in behalf of any candidate.

SECTION 15. Immediately after the end of the voting day, the election judges, in the presence of the Government representative, shall count the ballots cast.

SECTION 16. The results of the election, together with the sealed ballot boxes containing the ballots cast in the election, shall be certified and forwarded by the judges to the General Superintendent who shall in the presence of at least four members of the Executive Committee, including the Chairman and Vice-Chairman of the existing Tribal Council, open the ballot boxes and announce the names of the elected delegates and Tribal officers.

SECTION 17. All elections shall be by majority vote. In case no one candidate receives a majority of the votes cast, the voters of the election community shall revote on the two highest candidates not later than sixty days after the General Election.

CHAPTER V

HOW OFFICERS OF THE TRIBAL COUNCIL ARE ELECTED

SECTION 1. The 74 election communities shall be divided into four provinces.

SECTION 2. At least thirty days before the General Election, members of the existing Tribal Council from each province shall call a nominating convention at a place designated by the General Superintendent.

SECTION 3. At such nominating convention, each voter within the province shall be entitled to cast one vote.

SECTION 4. Each province shall nominate one candidate for Chairman of the Tribal Council.

SECTION 5. The candidate receiving the largest number of votes shall be certified to the General Superintendent as the province candidate for Chairman of the Tribal Council.

SECTION 6. Members of the existing Tribal Council shall act as a nominating committee and certify candidates to the General Superintendent.

SECTION 7. When the candidates for Chairman have been certified to the General Superintendent, they shall be called to Window Rock for a drawing of the colors to designate their ballots.

SECTION 8. The ballots drawn by the candidates for the Office of Chairman shall be so marked as to avoid confusing them with the ballots of tribal delegates.

SECTION 9. The candidate for Chairman receiving a majority of votes in the general election shall be the Chairman of the Navajo Tribal Council. If no one candidate receives a majority of the votes, a revote shall be taken on the two highest candidates not later than 60 days after the General Election.

SECTION 10. The candidate for Chairman receiving the next largest number of votes in the general election shall be the Vice-Chairman of the Navajo Tribal Council.

CHAPTER VI

THE MEETINGS OF THE TRIBAL COUNCIL

SECTION 1. The place of meeting of the Navajo Tribal Council shall be the House of the Tribal Council at Window Rock.

SECTION 2. The expenses of two meetings during the first year after the election of the Tribal Council and of one meeting during each other year shall be paid from tribal funds, if available. The Council itself must arrange to meet the expenses of any additional meetings.

SECTION 3. Meetings of the Tribal Council shall be called by the Commissioner of Indian Affairs, upon at least seven days' notice, whenever a majority of the members of the Executive Committee shall request such a meeting.

SECTION 4. The Chairman of the Tribal Council shall designate a Secretary, and the General Superintendent shall make available clerical assistance, to make a proper record of the proceedings of Council meetings. One or more official interpreters shall be designated by the Chairman with the concurrence of the General Superintendent.

SECTION 5. The Executive Committee shall meet at the call of its Chairman, upon at least seven days' notice, at the House of the Tribal Council at Window Rock. The Chairman shall be required to call a meeting whenever a majority of the members shall request such a meeting. No business shall be transacted at any meeting of the Executive Committee unless a majority of its members shall be present.

SECTION 6. The Chairman or, in the case of his absence, inability or unwillingness to act, the Vice-Chairman of the Tribal Council is authorized to sign or countersign resolutions, contracts or commitments approved by the duly authorized representatives of the Tribe.

CHAPTER VII

SECTION I. All regulations heretofore promulgated relating to the Navajo Tribal Council which are found to be inconsistent with these rules are hereby revoked as to such inconsistencies.

(Signed) E. R. Fryer
General Superintendent of the
Navajo Agency.

Recommended for Approval:
(Signed) John Collier, Commissioner of Indian Affairs
Approved: July 26, 1938
(Signed) Harold L. Ickes, Secretary of the Interior
Amendments approved September 17, 1938, and March 27, 1939.

G. REVISED ELECTION PROCEDURE: SEPTEMBER 15, 1950

The revisions and pertinent amendments to Chapters III, IV and V of the Rules and Regulations for the Navajo Tribal Council herein contained shall, when duly approved by the Navajo Tribal Council, and authorized by the Secretary of the Interior, supersede and replace any existing regulations with which they may be in conflict.

PART I (CHAPTER IV)

HOW THE TRIBAL COUNCIL IS ELECTED

SECTION 1. Elections shall be held the first Monday and Tuesday in March of election years for the purpose of choosing delegates, officers of the Navajo Tribal Council, and judges in the Navajo Court of Tribal Offenses. The polling places are designated in Appendix 1.

SECTION 2. All members of the Navajo Tribe shall be eligible to vote in Tribal elections after they have reached the age of 21 years, provided they have previously registered for voting as set forth in Section 3 below.

SECTION 3. The period from December 1 to January 31, corresponding to election years, shall be designated as a registration period. During this time District Supervisors, school personnel and others agreed upon and authorized by the Chairman of the existing Tribal Council and the General Superintendent, shall register qualified Navajo voters. Such registrars shall issue to each registrant a card bearing the name of the voter, his or her age, home address, and the polling place at which he or she will be permitted to vote. The voter's registration card shall be in two segments, each bearing identical information. Registrars shall retain one portion, and at the close of the registration period they shall prepare and certify an alphabetically arranged list of all persons registered to vote in each election community. All individuals voting on the reservation or in its immediate vicinity must go to the polling place indicated on their cards. The registration card shall be surrendered at the place of voting at the time the voter receives his or her ballot, and no person shall be given a ballot unless he or she surrenders the registration card. At the time a voter appears at the polls and surrenders his or her registration card to receive a ballot, his or her name shall be checked off on the list of registrants for that election community before a ballot can be issued. If the voter's name is not among those listed, he or she shall not be issued a ballot.

SECTION 4. A paper ballot, upon which are printed the names and the pictures of all candidates, shall be used in Tribal elections. The upper portion of the ballot shall contain the names and pictures of candidates for Chairman and Vice Chairman of the Tribal Council, and of candidates for the office of Judge in the Court of Tribal Offenses. The lower portion of the ballot shall contain the pictures and names of candidates for the office of delegate to the Tribal Council. Ballots shall be numbered consecutively and provided in blocks to each election community and authorized polling place off the reservation. A box shall be provided opposite each picture, in which the voter may indicate his or her choice by an X or other appropriate mark.

SECTION 5. The Chairman of the existing Tribal Council and the General Superintendent shall instruct the District Supervisors and/or other designated individuals in the field, to call a meeting in each of the election communities. These meetings shall be called for the first Monday in January of election years, and shall continue for as many subsequent days as necesary. Such meetings shall be for the purpose of of nominating: 1. three candidates for the office of delegate to the Tribal Council; 2. three election judges to serve at the community polling place on the days of the general election; 3. one delegate to represent the community at the province nominating convention (See Part 1, Section 12). The delegate to the province nominating convention shall be instructed by his community regarding that community's preference in connection with the choice of province candidates for the offices of Chairman of the Tribal Council and Judges in the Navajo Court of Indian Offenses. At the nominating convention such delegates will have an opportunity to nominate or support the candidates who represent the choice of their respective communities.

SECTION 6. All candidates referred to in Section 5 above shall be chosen by rising vote from among the persons nominated by the people in attendance at the meetings. That candidate, or those candidates, receiving the greatest number of votes shall be considered as the choice of the community.

SECTION 7. The names of all candidates for the office of delegate to the Tribal Council, those of the three election judges chosen by each community and that of the convention delegate shall be certified to the Chairman of the existing Tribal Council and to the General Superintendent within a period of 10 days following the meeting.

SECTION 8. The 74 election communities shall be divided into four (4) provinces.

SECTION 9. Starting on the third Monday in January, a convention shall be held in each province for the purpose of nominating candidates for the office of Chairman of the Tribal Council, and selecting from among the persons nominated one person, who shall be considered as the province candidate for that office.

SECTION 10. The province nominating conventions shall be held at places to be agreed upon and designated by the Chairman of the existing Tribal Council and the General Superintendent.

SECTION 11. The province nominating convention shall be presided over by a Convention Chairman to be selected as the first act of business by the convention delegates. Such Convention Chairman may or may not be at the same time a convention delegate. If he is a delegate he shall not lose his right to nominate and vote as such in the convention. The Convention Chairman shall have the right to appoint a Secretary, Sergeants-at-arms, and other officers necessary to the efficient operation of the convention. The Convention Chairman shall preside in conjunction with a government representative to be named by the Chairman of the Tribal Council and the General Superintendent.

SECTION 12. The nominating conventions shall be composed of the delegates selected for the purpose from each election community within the province, as provided for under Part 1, Section 5.

SECTION 13. Each delegate to the nominating convention shall have the right to nominate candidates to the office of Chairman of the Tribal Council, and to that of judge in the Navajo Court of Tribal Offenses.

SECTION 14. One candidate for the Chairmanship, and two candidates for Judge shall be selected in each province by standing vote. Candidates shall be selected on the basis of the individual or individuals receiving the highest number of votes.

SECTION 15. The person nominated for the office of Tribal Chairman in each province shall, during the nominating convention, and after his candidacy has been established, name a running mate for the office of Vice Chairman of the Navajo Tribal Council. The names of the candidate for Chairman, with his selection of a running mate for the Vice Chairmanship, shall be entered in the ballot and voted upon as a single ticket. It shall not be possible to split the vote between two tickets for this Tribal office.

SECTION 16. The Convention Chairman and the Indian Service representative in each province shall certify to the Chairman of the existing Tribal Council and the General Superintendent the province candidate for Tribal Chairman, Vice Chairman, and the candidates for Judge. Such certification shall be made within 5 days following the close of the convention in each province.

SECTION 17. Printing of the ballots shall take place as soon as all candidates have been certified to the Chairman of the existing Tribal Council and the General Superintendent.

An edequate supply of ballots, plainly marked SAMPLE BALLOT and printed on paper of a different color from that of the ballots prepared for voting purposes, shall be widely distributed, and shall be posted in public places both on and off the reservation. Those posted in the various election communities shall have the local candidates for the office of delegate, and the candidates for the Tribal Offices encircled in red. Local meetings shall be encouraged in order to acquaint voters with the ballot and with voting procedure.

SECTION 18. Not more than three days before the date of the general election the Chairman of the existing Tribal Council and the General Superintendent shall send ballots and ballot boxes to the polling places in each of the election communities.

SECTION 19. On each of the two election days voting shall begin at 7:00 A. M. and shall end at 6:00 P. M.

SECTION 20. The Chairman of the existing Navajo Tribal Council and the General Superintendent shall assign a government representative to each polling place to supervise the voting.

SECTION 21. The election judges shall guard the polls, maintain order, instruct voters in the techniques of balloting, collect registration cards and issue ballots, and otherwise assist under the direction of the government representative assigned to supervise voting at each polling place in accordance with Section 20 above.

SECTION 22. Neither the election judges nor the government representatives shall in any way influence the voters in behalf of any candidate.

SECTION 23. All candidates elected to office shall be chosen on the basis of plurality vote.

SECTION 24. At the close of the election, the election judges, under the supervision of the government representative, shall tabulate the results of the balloting and forward this information to the office of the General Superintendent at Window Rock by telephone.

SECTION 25. The sealed ballot boxes containing the ballots cast in the election, a written statement of the election results, certified by the government representative and by the election judges at each polling place, the list of registered voters, and the surrendered voters' registration cards, shall be forwarded to the office of the General Superintendent at Window Rock. The sealed statements of election results shall be opened by the General Superintendent in the presence of the Chairman and the Vice Chairman of the existing Navajo Tribal Council and at least four (4) members of the Advisory Committee. Election results from each election community shall then be totaled, and the names of the newly elected delegates, Council Officers and judges shall be announced.

SECTION 26. Any person who may be accused of fraud, or of attempt to commit fraud, in connection with the general election, shall be tried in the Navajo Court of Tribal Offenses, and, if convicted, a sentence of not less than one year at hard labor and a fine of not less than $500 for the person so convicted shall be mandatory upon the said court.

PART II. (Chapter IVa)

PROVISION FOR ABSENTEE VOTING

SECTION 1. Polls shall be established in not more than six (6) places remote from the Reservation, to serve the needs of voters who may be engaged in off-reservation work and thus unable to return to their community polling places on the date of the general election.

SECTION 2. The location of such polling places for absentee balloting shall be established not less than 60 days prior to the general election by the General Superintendent and the Advisory Committee of the Navajo Tribal Council.

SECTION 3. Absentee balloting shall be supervised at the polling places set up in accordance with Section 2 above, by one government representative designated by the General Superintendent and one member of the Advisory Committee of the Navajo Tribal Council, appointed for that purpose by said Committee.

SECTION 4. The same ballots for voting in the general election on the reservation (see Part 1, Section 4) shall be used in absentee voting except that ballots cast by absentee voters shall be plainly stamped ABSENTEE BALLOT, and their names and the name of their election community shall be copied from their registration card onto the ballot.

SECTION 5. No absentee voter shall be issued a ballot unless he surrenders the required voter's registration card, previously obtained in his home community on the reservation, (see Part 1, Section 3).

SECTION 6. Absentee balloting shall be carried on at the designated off-reservation locations during a period, and for the hours, identical with the dates and polling times established for the general election on the reservation proper.

SECTION 7. After the polls have closed on the final election day, the government and Tribal representatives in charge (see Section 3 above), shall count the ballots cast, tabulate the results, and wire the information to the General Superintendent at Window Rock. The sealed ballot boxes containing the ballots, and a written tabulation of the election results shall be returned to the office of the General Superintendent as soon as possible, to be included with results from reservation election communities as set forth under Part 1, Section 25.

SECTION 8. The registration cards surrendered by absentee voters shall be turned over to the General Superintendent for checking against the list of registered voters from each election community, as provided for under Part 1, Section 3. If a card is found for any individual whose name does not appear on the certified list of registered voters for a given community, that person's ballot shall be disqualified and thrown out.

PART III

ELECTION OF JUDGES IN THE NAVAJO TRIBAL COURT OF INDIAN OFFENSES

SECTION 1. There shall be five (5) judges to serve the needs of the Navajo Tribal Court of Indian Offenses.

SECTION 2. The office of Tribal Judge shall be an elective office.

SECTION 3. The Tribal Judges shall hear cases within their jurisdictions as established by the Chairman of the Tribal Council and the General Superintendent, with the advice of the Advisory Committee, at Tribal Courts in Shiprock, New Mexico; Fort Defiance, Arizona; Chinle, Arizona; Tuba City, Arizona; Kayenta, Arizona.

SECTION 4. No person shall be eligible for candidacy or election to the office of Tribal Judge unless: 1. he is a member of the Navajo Tribe, 35 years of age or older; 2. he is proficient in reading, writing and speaking the English language; 3. he consents to undergo such training as the Chairman of the Tribal Council and the General Superintendent may see fit to advise after his election.

SECTION 5. The Advisory Committee of the Navajo Tribal Council and the General Superintendent shall determine the eligibility of candidates for the office of judge, and shall certify qualified candidates prior to the general election.

SECTION 6. Each voting province shall be permitted to name two candidates to the office of Judge in the Navajo Tribal Court of Indian Offenses, as set forth under Part 1, Sections 5 and 14. Voters at the polls shall be instructed to vote on five (5) candidates only for this office.

SECTION 7. Tribal Judges shall be paid an annual salary of $2400, half of which shall be from applicable federal funds, and half from Navajo Tribal Funds.[1]

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[1] As this pamphlet goes to press, a question still remains regarding the funds from which judges' salaries are to be paid.

In conformity with a directive, dated September 9, 1953, from the Acting Commissioner of Indian Affairs, it has been necessary to revise the Election Procedure adopted on September 15, 1950, to exclude Bureau personnel from active participation in regular elections of the Navajo Tribe. To accomplish the necessary revision, the Navajo Tribal Council, by the terms of Council Resolution CS-30-54, dated September 7, 1954, delegated full authority to the Advisory Committee. The Advisory Committee, by Resoultion No. ACO-36-54, dated October 15, 1954, completed the required revision, and transmitted it to the Commissioner of Indian Affairs and to the Secretary of the Interior. On November 12, 1954, the Chairman of the Tribal Council received advice from Orme Lewis, Assistant Secretary of the Interior, by teletype, that Secretarial approval had been granted with regard to the Revised Election Procedure.

It is therefore important that all eligible Navajo electors familiarize themselves with the procedure which will govern the forthcoming Navajo Tribal election, the text of which is provided herewith.

H. NAVAJO TRIBAL ELECTION PROCEDURES AND REGULATION AS AMENDED

October 15, 1954 (ACO-36-54)

PART I (CHAPTER IV)

HOW THE TRIBAL COUNCIL IS ELECTED

Election Dates

SECTION 1. Elections shall be held the first Monday and Tuesday in March of election years for the purpose of choosing delegates, officers of the Navajo Tribal Council, and judges in the Navajo Tribal Court of Indian Offenses. The polling places are designated in Appendix 1.

Eligibility of Voters

SECTION 2. All members of the Navajo Tribe shall be eligible to vote in Tribal elections after they have reached the age of 21 years, provided they have previously registered for voting as set forth in Section 3 below.

Registration period

SECTION 3. The period from November 15 to January 31, preceding an election, shall be designated as a registration period. During this period registrars designated by the Chairman of the Board of Election Supervisors (see PART I, SECTION 5) shall register qualified Navajo voters. Such registrars shall issue to each registrant a card bearing the name of the voter, his or her age, home address, and the polling place at which he or she will be permitted to vote. The voter's registration card shall be in two segments, each bearing identical information. Registrars shall retain one portion, and at the close of the registration period they shall prepare and certify an alphabetically arranged list of all persons registered to vote in each election community. All individuals voting on the reservation or in its immediate vicinity must go to the polling place indicated on their cards. The registration card shall be surrendered at the place of voting at the time the voter receives his or her ballot, and no person shall be given a ballot unless he or she surrenders the registration card and shall at that time be at least 21 years of age. At the time a voter appears at the polls and surrenders his or her registration card to receive a ballot, his or her name shall be checked off on the list of registrants for that election community before a ballot can be issued. If the voter's name is not among those listed, he or she shall not be issued a ballot.

Ballot

SECTION 4. A paper ballot, upon which are printed the names and the pictures of all candidates, shall be used in Tribal elections. The upper portion of the ballot shall contain the names and pictures of candidates for Chairman and Vice Chairman of the Tribal Council, and of candidates for the office of Judge in the Navajo Tribal Court of Indian Offenses. The lower portion of the ballot shall contain the pictures and names of candidates for the office of delegate to the Tribal Council. Ballots shall be numbered consecutively and provided in blocks to each election community and each authorized polling place off the reservation. A box shall be provided opposite each picture, in which the voter may indicate his or her choice by placing an X therein.

Board of Election Supervisors

SECTION 5. The Chairman of the existing Tribal Council, with the concurrence of the Advisory Committee, shall establish a Board of Election Supervisors, of not more than twenty-two (22) members, to carry out all major details of tribal elections within the areas assigned to each such Election Supervisor, and shall establish the compensation of each. As soon as the Board of Election Supervisors has been established, prior to any tribal Election, the Chairman of the existing Tribal Council, with the concurrence of the Advisory Committee, shall proceed to designate one such member of the Board of Election Supervisors as Chairman thereof.

Poll clerks, Election judges

SECTION 6. The Board of Election Supervisors shall appoint Registrars, who shall also serve as poll clerks at each election and, also, shall appoint not to exceed three Election Judges to serve at each polling place. The Board shall fix the compensation, if any, for Registrars at rates not in excess of ten cents ($.10) per registration. The Board shall fix the compensation for poll clerks and election Judges at rates not to exceed three dollars ($3.00) per day.

Local meetings

SECTION 7. The Chairman of the Board of Election Supervisors shall instruct the Election Supervisors and/or other designated individuals in the field, to call a meeting in each of the election communities. These meetings shall be called for the first Monday in January of election years, and shall continue for as many subsequent days as necessary. A chairman or certifying officer shall be selected from the electors present to preside over the meeting. Such meetings shall be for the purpose of nominating: 1. not more than three candidates for the office of delegate to the Tribal Council; 2. one delegate to represent the community at the province nominating convention (See Part I, Section 12). The delegate to the province nominating convention shall be instructed by his community regarding that community's preference in connection with the choice of province candidates for the office of Chairman of the Tribal Council and Judges in the Navajo Tribal Court of Indian Offenses. At the nominating convention such delegates will have an opportunity to nominate or support the candidates who represent the choice of their respective communities.

SECTION 8. All candidates referred to in Section 7 above shall be chosen by rising vote from among the persons nominated by the electors in attendance at the meetings. That candidate, or those candidates, receiving the greatest number of votes shall be considered as the choice of the community.

Certification of candidates

SECTION 9. The names of all candidates for the office of Delegate to the Tribal Council chosen by each community and that of the convention delegate shall be certified by the presiding officer to the Chairman of the Board of Election Supervisors within a period of 10 days following the meeting.

Election Provinces

SECTION 10. The 74 election communities shall be divided into four (4) provinces, as follows: Province I shall comprise Districts 1, 2, 3, 4, and 8; Province II shall comprise Districts 5, 7, 17, and 10; Province III shall include Districts 11, 14, 15, 16, 18 and Ramah; and Province IV shall consist of Districts 9, 12, 13, 19, Canoncito and Puertocito.

Nominating convention

SECTION 11. On the third Monday in January, and continuing until completed, a convention shall be held in each province to nominate candidates for the office of Chairman of the Tribal Council, and to select from among the persons nominated one person, who shall be considered as the province candidate for that office.

SECTION 12. The province nominating conventions shall be held at places to be agreed upon and designated by the Chairman of the Board of Election Supervisors, with the concurrence of the Advisory Committee.

Convention officials

SECTION 13. The province nominating convention shall be called to order by the Election Supervisor designated by the Chairman of the Board of Election Supervisors, to act as Convention Chairman pro tem, pending the election of the Convention Chairman. A Convention Chairman shall be elected as the first act of business by the convention delegates. Such Convention Chairman may or may not be at the same time a convention delegate. If he is a delegate he shall not lose his right to nominate and vote as such in the convention. The Convention Chairman shall have the right to appoint a Secretary, Sergeants-at-arms, and other officers necessary to the efficient operation of the convention.

SECTION 14. The province nominating conventions shall be composed of the delegates selected for the purpose from each election community within the province, as provided for under Part 1, Section 7.

SECTION 15. Each delegate to the province nominating convention shall have the right to nominate candidates to the office of Chairman of the Tribal Council, and to that of Judge in the Navajo Tribal Court of Indian Offenses.

Nomination: Chairman and Judge

SECTION 16. One candidate for the Chairmanship, and three candidates for Judges shall be selected in each province by standing vote. Candidates shall be selected on the basis of the individual or individuals receiving the highest number of votes.

Vice Chairman

SECTION 17. The person nominated for the office of Tribal Chairman in each province shall, during the nominating convention, and after his candidacy has been established, name a running mate for the office of Vice Chairman of the Navajo Tribal Council. The names of the candidate for the Chairman, together with his selection of a running mate for the Vice Chairmanship, shall be entered in the ballot and voted upon as a single ticket.

Certification: Chairman, Vice Chairman and Judge

SECTION 18. The Province Convention Chairman and the designated Election Supervisor presiding at each Province nominating convention shall certify to the Chairman of the Board of Election Supervisors the names of the province candidates for Tribal Chairman and Vice Chairman, and those of the candidates for Judges. Such certification shall be made within 5 days following the close of the convention in each province.

Sample ballots

SECTION 19. Printing of the ballots shall take place as soon as possible after all candidates have been certified to the Chairman of the Board of Election Supervisors. An adequate supply of ballots, plainly marked SAMPLE BALLOT and printed on paper of a different color from that of the ballots prepared for voting purposes, shall be widely distributed, and shall be posted in public places both on and off the reservation. Those posted in the various election communities shall have the local candidates for the office of delegate, and the candidates for the Tribal Offices encircled in red. Local meetings shall be encouraged in order to acquaint voters with the ballot and with voting procedure.

Sending of ballots and ballot boxes

SECTION 20. Not more than three days before the date of the general election the Chairman of the Board of Election Supervisors shall send ballots and ballot boxes to the polling places in each of the election communities.

Polling hours

SECTION 21. On each of the two election days voting shall begin at 7:00 A.M. and shall end at 6:00 P.M.

Supervision

SECTION 22. The Chairman of the Board of Election Supervisors shall assign members of the Board to inspect all polling places on the election day's.

Duties of Election Judges and Poll Clerks

SECTION 23. The election judges shall guard the polls, maintain order and instruct voters in the techniques of balloting. The Poll Clerks shall collect registration cards and issue ballots.

Influencing of voters

SECTION 24. Neither the Election Judges, Poll Clerks nor the Election Supervisor shall in any way influence the voters in behalf of any candidate.

SECTION 25. All candidates elected to office shall be chosen on the basis of plurality vote.

SECTION 26. At the close of the election, the election judges shall tabulate the results of the balloting, lock the ballots in the ballot boxes, and transmit the results of the balloting to the office of the Chairman of the Board of Election Supervisors at Window Rock by telephone.

Counting of votes

SECTION 27. The sealed ballot boxes containing all of the ballots cast in the election, a written statement of the election results, certified by the election judges at each polling place, the list of registered voters, the surrendered voters' registration cards and the duplicates thereof shall be forwarded to the office of the Chairman of the Board of Election Supervisors at Window Rock. The sealed ballot boxes and other data of election results shall be opened by the Chairman of the Board of Election Supervisors, and election results from each election community shall then be totaled, and the names of the newly elected delegates, Council Officers and judges shall be tentatively announced, pending a complete recount and canvass of the ballots cast by the Board of Election Supervisors, in the presence of the Chairman and Vice Chairman of the existing Tribal Council.

Penalty for election fraud

SECTION 28. Any person who may be accused of fraud or of attempt to commit fraud, in connection with the general election, shall be tried in the Navajo Tribal Court of Indian Offenses, and, if convicted, a sentence of not less than one year at hard labor nor more than two years and a fine of not less than $500 nor more than $1000 for the person so convicted shall be mandatory upon the said court.

PART II (CHAPTER IVa)

PROVISION FOR ABSENTEE VOTING

SECTION 1. The Board of Election Supervisors shall establish polls at places remote from the Navajo country, to serve the needs of voters who may be engaged in off-reservation work and thus unable to return to their community polling places on the date of the general election, or who are hospitalized on or off the reservation.

SECTION 2. The location of such polling places for absentee balloting shall be established not less than 60 days prior to the general election.

Absentee balloting

SECTION 3. Absentee balloting shall be supervised at the polling places set up in accordance with Sections 1 and 2 above by a person designated for that purpose by the Chairman of the Board of Election Supervisors.

Absentee ballot

SECTION 4. The same ballots for voting in the general election on the reservation (see Part 1, Section 4) shall be used in absentee voting except that ballots cast by absentee voters shall be plainly stamped ABSENTEE BALLOT, and the voters' name and the name of his election community shall be copied from his registration card onto the ballot.

Registration card

SECTION 5. No absentee voter shall be issued a ballot unless he surrenders the required voter's registration card, previously obtained in his home Community on the reservation, (see Part 1, Section 3), or from a designated registrar.

Polling hours

SECTION 6. Absentee balloting shall be carried on at the designated off-reseravtion locations during a period, and for the hours, identical with the dates and polling times established for the general election on the reservation proper.

Counting of absentee votes

SECTION 7. After the polls have closed on the final election day in accordance with Section 21, Part I, Chapter IV, designated representatives in charge (see Section 3 above), shall count the ballots cast, tabulate the results, and telegraph the information to the Chairman of the Board of Election Supervisors at Window Rock. The sealed ballot boxes containing the ballots, and a written tabulation of the election results shall be returned promptly to the office of the Chairman of the Board of Election Supervisors, to be included with results from reservation election communities as set forth under Part 1, Section 27.

Disposition of registration card

SECTION 8. The registration cards surrendered by absentee voters shall be turned over to the Chairman of the Board of Election Supervisors for checking against the list of registered voters from each election community, as provided for under Part I, Section 3. If a card is found for any individual whose name does not appear on the certified list of registered voters for a given community, that person's ballot shall be disqualified and thrown out.

PART III

ELECTION OF JUDGES IN THE NAVAJO TRIBAL COURT OF INDIAN OFFENSES

Seven Judges

SECTION 1. There shall be seven (7) judges to serve the needs of the Navajo Tribal Court of Indian Offenses.

SECTION 2. The office of Tribal Judge shall be an elective office.

Qualifications: Judge

SECTION 3. No person shall be eligible for candidacy or election to the office of Tribal Judge unless: 1. he is a member of the Navajo Tribe, 35 years of age or older; 2. he is proficient in reading, writing and speaking the English language; 3. has never been convicted of a felony, or, within one year then last past, of a misdemeanor; 4. he consents to undergo such training as the Chairman of the Tribal Council may see fit to advise after his election.

Certification of candidates

SECTION 4. The Advisory Committee of the Navajo Tribal Council shall determine the eligibility of candidates nominated for the office of judge, and shall certify qualified candidates prior to the general election.

Voters to select seven candidates

SECTION 5. Each voting province shall be permitted to name three candidates to the office of Judge in the Navajo Tribal Court of Indian Offenses, as set forth under Part 1, Sections 7 and 16. Voters at the polls shall be instructed to vote on seven (7) candidates only for this office.

A SKETCH OF THE NAVAJO LANGUAGE

By
Robert W. Young

Introductory. In previous editions of The Navajo Yearbook a brief description of the Navajo language was provided, including its relationship with other Indian languages, its phonology, morphology and other features. The sketch was provided largely for the purpose of providing basic information to teaching personnel in schools serving Navajo children, and to the interested public. Partly it was included for the purpose of dispelling the popular myths that commonly surround Indian languages. This sketch has been expanded in the present edition, especially with respect to the problems of teaching English as a foreign language to Navajo beginners.

HISTORICAL

In pre-Columbian times there were about 350 Indian languages spoken on the North American continent, exclusive of about 100 additional languages in Mexico and Central America, while in South America and the Antilles there were about 800. In addition to these distinct languages, there were many dialects. These numerous languages pertain to separate linguistic families within which most of them have been classified, just as the languages of Africa, Asia, Europe and other areas of the world are classified within the several linguistic families to which they belong. Like the languages of the Old World, those of the first Americans are fully developed and, in fact, often highly complex, speech forms. They are not "primitive" in the sense that they are rudimentary tools of communication based on grunts and gestures as they are sometimes imagined. In fact, the Indian sign language developed by the hunting tribes of the

Great Plains, is often confused with spoken Indian languages, leading to the false assumption that all Indians communicated by means of gestures. The sign language was an elaborate system developed to facilitate intercommunication among groups speaking tribal languages which were not mutually intelligible - Persians, Chinese, Spaniards and Arabs potentially could have developed a similar system of intercommunication under similar circumstances while speaking their several languages for purposes of intragroup communication.

There are many popular myths relating to the languages, as well as to other characteristics, of Indian groups, including the belief that there is only one Indian language; that "the language" (or a given Indian language) has a vocabulary of only 400 words; that missionaries returning from the Orient carry on conversations with American Indians (implying mutual intelligibility between certain Indian and Oriental speech forms), to mention a few of these all too common misconceptions.

The Development and Interrelationship of Languages. It was mentioned above that the 1,200 or more Indian languages spoken in the New World are generally classified into linguistic families on the basis of their inter-relationship and inferred common ancestry, in a manner similar to that in which languages of the Old World are classified. Our own English language is a member of the family commonly called the Aryan or Indo-European family, comprising a great number of modern and historical, extant and extinct, speech forms. The ancient Sanskrit language of India and its modern derivatives; the language of the Hittites; ancient and modern Greek; Latin and its offsprings, the Romance languages; Tokharian and many others are interrelated, directly or indirectly, as members of the Indo-European family.

By virtue of their interrelationship, such languages are viewed as the descendents of a common ancestral speech system, commonly described as the "proto-" or first form. Thus, proto-Indo-European is the hypothetical common ancestor of all the languages, ancient and modern, that make up that family. An analogy, although oversimplified, might be the trunk of a tree with its several limbs, branches and twigs representing major linguistic families, sub-families and offshoots. Within such a major family as the Indo-European there are sub-groups with closer relationship *inter se* than with members of other related subgroups. To use the analogy of the tree, this is like saying that the branches and twigs stemming from one major limb are more closely related to one another than to the branches stemming from a limb on the other side of the tree. Thus, in our own language family, we have such major "limbs" as the Italic group, including such "branches" or relatively closely related languages as Latin, Oscan and Umbrian, and such further offshoots (geographic developments) as modern Italian, Spanish, Portuguese, Roumanian, French, etc., from the Latin "branch"; a Celtic "branch" including the Gaelic, Welsh, Manx, Cornish, Breton and other linguistic offshoots; the Indo-Iranian "branch" including Sanskrit, Prakrit, Bengali, Gujarati, Marathi, Persian and other ancient and modern languages; the Greek "branch", the Balto-Slavic "branch" and others. These in turn, although all stemming from a common "trunk", each has its more immediate ancestral form; proto-Germanic, for example.

In like manner, the members of the several linguistic families of the New World can be grouped and sub-grouped according to the degree and form of their interrelationship.

The Development of the Navajo Language. Navajo is a member of a subgroup of the Athabascan branch of the *Nadene* language family. The Nadene family includes four major branches; the Eyak, the Haida, the Tlingit, and the Athabascan. The Athabascan branch includes a number of more or less closely related languages in interior Alaska (e.g. the Tanaina, Tahltan, Tuchone, Ahtena, etc.), western Canada (e.g. the Yellow Knife, Chipewyan, Slave, Dogrib, Carrier, Tsekani, Beaver, Sarsi, etc.), the northwest Pacific coast (Upper Umpqua, Chasta Costa, Hupa, Kato, Wailaki, Mattole, etc.) and the Southwestern United States (Navajo, Chiricahua, Mescalero, Lipan, Jicarilla, Kiowa-Apache, etc.). The latter group comprise the Apachean subgroup of those related languages which trace their Nadene ancestry through proto-Athabascan.

Anthropological and linguistic research (1) seems to indicate that the Nadene speaking people arrived in Alaska from Asia about 3000 years ago. By the close of the first millenium after their arrival, the Tlingit and the Athabascan separation had already taken place, and at a period between 1300 and 1000 years ago, segments of the Athabascan speaking peoples migrated to the Pacific coastal area. The migration of other Athabascan speaking people, called the Apacheans, to the Southwest seems to have occured about 1000 to 600 years ago, and linguistic differentiation into the modern forms of Apachean (i.e. Navajo, Jicarilla, Chiricahua, Lipan, etc.) has taken place over the course of the past 400 to 500 years, beginning about the time of the discovery of America.

The relationship of the Nadene to languages of the Old World remains to be definitively demonstrated and established, but there is a strong probability that a relationship may be proven

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(1) See The Chronology of the Athabascan Languages by Harry Hoijer, IJAL, Vol. 22.

(2)
between Nadene and the Sino-Tibetan languages (i.e. the ancestral form of the Chinese and Tibetan languages).

French, Spanish and Italian are closely related as members of the Romance language sub-group - they all represent divergent geographic developments from Latin. Although they are not mutually intelligible, there are many close parallels in lexicon or vocabulary, as well as structural, phonological and other similarities that make their relationship amply apparent even on the basis of superficial examination as French homme, Spanish hombre, and Italian uomo, man; or French heure, Spanish hora, and Italian ora, hour.

Similarly, the relationship between Navajo and certain Canadian Athabascan languages is apparent in such forms as Navajo łóó', Sarsi tłúk'á, Beaver łúuge, Chipewyan łuwe, and Carrier łooh, all meaning fish; or Navajo diné, Sarsi diná, Beaver dine, Chipewyan dena, and Carrier dineeh, all meaning man, person. As in the instance of the Indo-European languages, there are varying degrees of similarity in the phonology, morphology and structure of Navajo and its linguistic relatives in the North, and even closer similarities with its sister Apachean languages of the American Southwest.

Navajo Phonology

The sound system of Navajo is relatively simple, although it exhibits many features foreign to English and other Indo-European languages - features which frequently pose a problem for English speaking persons learning Navajo or, indirectly, for Navajo speakers who learn English.

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(2)
See IJAL, Vol. 18, No. 4, Oct. 1956, Review by R. Shafer of "Athabascan and Sino-Tibetan", by Morris Swadesh, and Vol. 18, No. 1, Athabascan and Sino-Tibetan, by R. Shafer.

The basic or distinctive phonemes (sounds that distinguish meaning) of Navajo are listed and described below:

(a) Vowels and Vowel Clusters: With reference to this category of speech sounds, meaning is distinguished in Navajo by four basic vowel phonemes, but including the additional distinctive features of vowel length (short or long in duration), nasalization (or lack of nasalization), and tone (high, low, rising and falling). In writing, these features may be represented by doubling the vowel to indicate length, and by the use of diacritical marks to indicate nasality and tone. In the former case, a "nasal hook" is placed under the vowel to indicate its nasal quality, and in the latter instance an acute accent is used to indicate high tone. Falling and rising tones occur only with long vowels or diphthongs, and acute accent on the first or second vowel symbol suffices to represent graphically all of the essential tonal qualities. Thus, dibé (high tone), sheep; 'áníigo, (falling tone), he saying; and shínaaí (rising tone), my elder brother. The vowels and vowel clusters of Navajo are:

	ORAL		NASAL	
	Short	Long	Short	Long
1. Low-central unrounded	a	aa	ą	ąą
2. Mid-front unrounded	e	ee	ę	ęę
3. High-front unrounded	i	ii	į	įį
4. Mid-back rounded	o	oo	ǫ	ǫǫ

1. a in father. Navajo bá, for him.
aa long a. Navajo saad, word; language.
ą nasoral ą. French dans. Navajo są́, old age.
ąą long ą. Navajo naadą́ą́', corn.

2. e in met. Navajo ké, foot; shoe; footwear.
ee long e. Navajo bee, with it.
ę nasoral e. Navajo doohęs, it will itch.
ęę long ę. Navajo - dę́ę́', from.

3. i in it. Navajo ni, you.
ii long i (as in machine). Navajo biih, into it.
į nasoral i. Navajo jį́, day.
įį nasoral long įį. Navajo bįįh, deer.

4. o o in sole. Navajo tó, water.
oo long o. Navajo dooda, no
ǫ nasoral o. French bon. Navajo sǫ', star.
ǫǫ long nasoral ǫ. Navajo dlǫ́ǫ́', prarie dog.

5. ai nearly as in I, eye. Navajo sáí, sand.
aai; aii long ai. Navajo łigaii, white one; bínaaí, his brother.

6. ei, eii ay as in day. Navajo 'éí, 'eii, that; that one.

7. oi, oii as ewy in dewy. Navajo deesdoi, it's hot; niiłdoii, I heated it.

Unless they are preceded by another consonant, all Navajo vowels are preceded by a laryngeal closure written \'/.

Tonal pitch serves as the only distinctive feature to differentiate meaning in such words as: nílį́, you are; nilį́, he is; 'át'į́, he does, he did it; 'at'į́, he is rich; 'azéé', mouth; 'azee', medicine.

Similarly, vowel length distinguishes meaning in bito', his water; bitoo', its juice; bitse', his rock; bitsee', his tail, etc.

Each syllable that composes a word in Navajo has its own inherent tonal pitch and substitution of a low tone for a high or vice versa may change the meaning or produce no meaning at all. Thus, 'áyiilaa, he made it, cannot be correctly pronounced as 'ayíílaa*, 'ayiiláá*, etc. Likewise, syllable vowels are inherently short or long in duration, and since vowel length distinguishes meaning, each vowel must be uttered with proper length. Under certain circumstances short vowels lengthen and long vowels shorten, following fixed morphophonemic rules, but lengthening of a first a or shortening of the second aa in such a word as 'ádzaa (to make 'aadzaa* 'aadza* etc.) would not be meaningful.

(b) Consonants: The consonants of Navajo are listed and described below:

	LABIAL	ALVEOLO-PALATAL	PALATO-VELAR	GLOTTAL
1. STOPS				
Unvoiced	b	d, t', tx	g, kh, kw, k'	\'/
2. SPIRANTS				
Voiced		z, zh	gh, ghw	
Unvoiced		s, sh	x, xw, h, hw	h
3. AFFRICATES				
Unvoiced		dl, tł, tł' dz, ts, ts' j (=dzh), ch (=tsh), ch' (=tsh')		
4. LATERALS				
Voiced		l		
Unvoiced		ł		
5. NASALS				
Voiced	m	n		
6. SEMIVOWELS	w		y	

1. *b* The labial stop represented by *b* is not voiced in Navajo, and sounds somewhat like the de-aspirated *p* in the English word *spot* (compare aspirated *p* of *pot* and voiced *b* in *Bott*). *b* never occurs as a syllable final consonant in Navajo. E.g. 'abání, buckskin; baa, to him.

2. *d* Like *b*, the alveolar stop *d* is not voiced in Navajo, and sounds something like the de-aspirated *t* of English *stop* (compare aspirated *t* in *top* and voiced *d* in *Dopp*). This phoneme occurs both as a syllable initial and a syllable final. E.g. dił, blood; łid, smoke.

3. *tx* The sound is composed of an unvoiced alveolar stop followed by a velar spirant *x*. The Navajo phoneme has no English correspondent, and occurs only in syllable initial position in Navajo. E.g. txó, water; txin, ice. (tx is labialized before the vowel o, as txwó, water; and it is palatalized before e, i, as txyééh, valley; txyin, ice.)

4. *t'* A sound produced by stopping the flow of air both by the tongue tip in a t-position, and by closure of the glottis. The alveolar stop is released, immediately followed by opening of the glottis to produce an audible explosive sound. It has no correspondent in English, and occurs only in syllable initial position in Navajo. E.g. t'iis, cottonwood; 'át'é, it is, nát'oh, tobacco.

5. *g* An unvoiced palatal stop, comparable to the de-aspirated *c* of English *scat* (contrast the aspirated *c* (k) of *cat* and the voiced *g* of *gat*). It occurs both as a syllable initial and (although infrequently) as a syllable final element in Navajo. E.g. gah, rabbit; deg, upward.

6. kh. A phoneme composed of the palatal stop k in conjunction with the velar spirant X or an attenuated variant. It is a rather heavily aspirated "k-sound", and occurs only as a syllable initial in Navajo. The spirant is represented here by h. E.g. khǫ', fire; khin, house; łikhan, sweet.

7. khw A labialized variant of kh, comparable to the phoneme written qu in conventional English orthography. It occurs only in syllable initial position in Navajo. E.g. khwe'é, here; khwá'ásiní, loved ones, friends and relatives.

8. k' A sound produced by stopping the flow of air by placing the back portion of the tongue in a k-position and closing the glottis, followed by release of the back portion of the tongue from the palate and subsequent release of the glottis to produce an explosive sound. It occurs only as a syllable initial. E.g. k'ad, now; k'wos, cloud.

9. \'/ A phoneme produced by stopping the flow of air by closure of the glottis. It is analogous to the labial stop represented by the orthographic symbol b, except that the larynx instead of the lips is involved. Although not a distinctive phoneme in standard English speech, the glottal stop occurs in such forms as huh uh (hu'u), oh oh! (o'o) etc. The glottal stop functions as a distinctive phoneme of Navajo, occurring in both syllable initial and final position. In fact, a syllable that is otherwise vowel-initial is always begun with a glottal stop. E.g. 'áhí, fog; ha'a'aah, east; naat'a', it flies about. It is the occurrence of the glottal stop that causes Navajo speech to sound "chopped" to English ears. Thus, in such a sentence as Díí 'at'ééd e'e'aahdę́ę́' naaghá, this girl is from the West, the frequent

closure of the glottis sounds strange to speakers of English because it is contrary to the smooth word juncture that characterizes the latter language.

10. z A voiced spirant similar to its English correspondent. It occurs both as a syllable initial and as a syllable final in Navajo. E.g. bizaad, his language; bizǫ́ǫ́z, its stinger.

11. zh A voiced spirant comparable to the s of English pleasure. It may be both syllable initial and final in Navajo. E.g. 'ázhi', name; 'oolzhiizh, he danced.

12. s An unvoiced spirant comparable to its English correspondent. It occurs both as a syllable initial and as a final in Navajo. E.g. sis, belt; 'as'ah, for a long time.

13. sh An unvoiced spirant similar to its English correspondent. It occurs both as a syllable initial and in syllable final position in Navajo. E.g. shash, bear; yishdlo, I am laughing.

14. gh A voiced velar spirant produced by raising the back portion of the tongue toward the velum to constrict the passage of air. It does not occur in English, and occurs only in syllable initial position in Navajo. E.g. hooghan, hogan; bighaa', its wool. (gh is labialized before o, as in bighwoo', his teeth; and palatalized before e, i, as in bighye'; his son; bighyi', inside of it.)

15. ghw Occurs as a syllable initial in Navajo, as in 'aghwéé', baby; ghwaa', beeweed. In such occurrences, gh is attenuated in contrast with the labial and can be described as a w begun with a spirantal attack.

16. x The unvoiced velar spirant corresponding to voiced gh. It occurs only in syllable initial position, and in some positions it is attenuated to h. (Some speakers frequently substitute h for x, also.) It is somewhat like the ch of German ich, except that the Navajo sound is made farther back, in the velar area. E.g. xai, winter; xáísh, who?; xaxashgééd or hahashgééd, I am digging a hole.

17. xw A labialized variant of x, also occurring as hw. E.g. xwiih or hwiih, satiation; xwee or hwee, with him.

18. h A sound produced by constriction of the glottis, but without closure. Something like h of English high, but more aspirate. Occurs only in syllable final position. E.g. sahdii, solitary; t'ah, still, yet; yah, into. This glottal spirant should not be confused with x or its attenuated form, written h. The latter occur only as syllable initials.

19. dl A combination of d and l, analogous to the gl of English. It occurs only in syllable inital position in Navajo. E.g. dlo, laughter, dleesh, white clay.

20. tł A combination of t and ł, occurring only in syllable initial position in Navajo. E.g. tłah, ointment; ditłéé', it is wet.

21. tł' A sound produced by stopping the flow of air by placing the tongue in a tł-position with simultaneous closure of the glottis followed by release, first of the tongue and subsequently of the glottal closure. It occurs only in syllable initial position. E.g. tł'éé', night; tł'oh, grass.

22. dz An unaspirated alveolar affricate composed of d and z, somewhat like its English correspondent

adze, except that the initial element of the Navajo affricate is a variant of the unvoiced Navajo d. It sounds more or less like the combination of English consonants in hats. It occurs only as a syllable initial in Navajo. E.g. dził, mountain; 'asdzání, woman.

23. ts An aspirated alveolar affricate, occurring only as a syllable initial in Navajo. It sounds something like ts of its in English, except that the Navajo phoneme is more heavily aspirated. E.g. tsin, tree; tsoh, big; 'atsį', meat.

24. ts' The glottalized variant of ts. (See description of t', k'). It occurs as a syllable initial in Navajo. E.g. ts'in, bone; bits'a', its pod.

25. j (=dzh). A blade-alveolar affricate, comparable to English j, but composed of a variant of Navajo d plus zh. It occurs only in syllable initial position. E.g. jį́, day; bijaa', his ear.

26. ch (=tsh) A blade-alveolar aspirated affricate, comparable to English ch. It occurs only as a syllable initial in Navajo. E.g chin, dirt, filth; dichin, hunger.

27. ch' The glottalized variant of ch. (See t' k' for description of manner of production.) It occurs only in syllable initial position in Navajo. E.g. ch'ah, hat; níłch'ih, breeze.

28. l A voiced, alveolar lateral comparable to its English correspondent. It occurs both in syllable initial and in final position. E.g. laanaa, would that; bíla' , his hand; siil, steam.

29. ł An unvoiced correspondent of l. It occurs both as a syllable initial and as a final.

E.g. łid, smoke; 'ałkéé', behind each other; dił, blood.

30. m A labial, nasal continuant, comparable to English m, but occurring only as a syllable initial in Navajo. E.g. mą'ii, coyote; shimá, my mother.

31. n. An alveolar nasal continuant, comparable to English n. It occurs as a syllable initial and as a final. E.g. noo', storage pit, bináá', his eyes; sin, song. n also functions syllabically, as in ndi, but (for nidi); ńlį́, you are (for nílį́).

32. y A semivowel, but pronounced with greater friction than in English. It occurs only as a syllable initial in Navajo. E.g. yishdlo, I am laughing; yistin, it froze. (3)

THE MORPHOLOGY AND STRUCTURE OF NAVAJO

Although Navajo and English are markedly divergent phonologically, the difference is extreme in terms of their morphological and structural features. Such divergence between unrelated speech systems is, of course, to be expected, but it is mentioned here because of the implications such differences have for the Navajo learning English and for the teacher who presents English to Navajos as a foreign language. More will be said in this connection following the sketch presented below.

The vocabulary of Navajo is composed of a number of mono-syllabic elements (verb stems, adverbial and pronominal elements, modal prefixes, etc.) bound together in a variety of combinations or,

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(3) See "Navajo Phonology" by Harry Hoijer, University of New Mexico Publications in Anthropology, No. 1, Publ. by the University Press, Albuquerque, 1945, for a detailed discussion of Navajo phonology.

occassionally, existing as free forms. This feature of the language will be described in greater detail in that portion of the sketch which has to do with the structure of the verb.

1. The Pronoun. In Navajo, the personal pronouns occur disjunctively (i.e. as independent forms) and conjunctively (i.e. as bound forms (prefixes) with nouns, postpositions and verbs). Only in their subjective and possessive form do they occur both in free and in bound form; as objective pronouns, they occur only in bound or prefixed form with the verb they modify. The pronouns are listed and described below, classified by person and by category to illustrate their form and function. The listing does not include all of the variant forms.

THE PRONOUNS OF NAVAJO

DISJUNCTIVE

PERSON*	Subjective	Possessive
1. sgl.	shí	shí, shíí'
2. sgl.	ni	ni, níí'
3.	bí	bí, bíí'
3o.	-	-
3a.	hó	hó, hwíí'
3s.	-	-
3i.	-	-
Reciprocal	-	-
Reflexive	-	-
1. dpl.	nihí	nihí, nihíí'
2. dpl.	nihí	nihí, nihíí'

CONJUNCTIVE

PERSON*	Subjective	Possessive	Objective
1. sgl.	-sh-	shi-	shi-
2. sgl.	-ni-	ni-	ni-
3.	zero	bi-	bi-
3o.	yi-	yi-	yi-
3a.	ji-	ha-	ho-
3s.	ho-	ha-	ho-
3i.	'a-	'a-	'a-

CONJUNCTIVE Cont'd.

PERSON*	Subjective	Possessive	Objective
Reciprocal		'ał, 'ahíł,	'ahi-
Reflexive		'á-	'ádí-
1. dpl.	-ii-	nihi-	nihi-
2. dpl.	-oh-	nihi-	nihi-

* Sgl = singular; dpl = dual-plural. There is no distinction in form to differentiate singular and plural number with reference to the third person pronouns.

In the examples given herewith below the pronominal prefixes are separated from other prefixes, from nouns, verbal stems etc. by hyphens for the sake of clarity and simplicity.

1. sgl. Pronouns of the first person singular are translatable as I, mine, my, me, depending upon form and context. Thus, shí, I; mine; shi-łį́į́', my horse; yi-sh-dlą́, I drink it; shi-níłtį́, he brought me.

2. sgl. The second person singular is translatable as you, yours, your, you, as in ni, you; yours; ni-łį́į́', your horse; ni-dlą́, you drink it; ni-níłtį́, I brought you.

3. The third person is more complex. The form identified as 3. is translatable as he, she, it, they, his, hers, its, him, her, it, them, etc. depending upon function and context. There are no separate forms marking gender in Navajo as there are in English, a fact that makes for much confusion and difficulty on the part of Navajos learning English. Examples are bí, he, she, it, they, his, hers, theirs, his, her, their, etc. bi-łį́į́', his, her, their, horse; as the subject of a verb 3. person is represented by zero (although bí as the subject is implied in the 3o. prefix yi-) as in yidlą́, he is drinking it; bí-biyiił'ą́ą́', I taught it to him (the first bí- represents that

that which is taught; the second -bi- stands for the person to whom it was taught). Thus, there is no prefix representing the 3. person in the forms naaghá, he goes about; 'adlą́, he drinks.

3o. The third person form identified as 3o. is an oblique pronominal form indicating action of a third person subject (bí) on a third person object (bi-). Thus, yi-dlą́, he drinks it; yi-ghan, he acting on it, his home. If the noun immediately preceding the verb, or preceding an expressed noun object, is the subject of the verb, yi- is used as the third person pronominal objective form, as in the sentence 'ashkii tł'iish yiyiisxį́, the boy killed the snake. If the second noun (tł'iish, snake) is the subject of the verb and the first noun is the object ('ashkii, boy), the verb must use the pronominal prefix bi- instead of yi-. Thus, 'ashkii tłiish biisxį́, the snake killed the boy.

It will be noted that the same form (bí) translates all genders of English, as well as singular and plural number in the third person. Thus, bí signifies both he and they, and the number of objects represented by yi- may similarly be singular or plural as required by context or verbal stem.

3a. The third person form marked 3a may refer only to persons, and not to things. It is used as a second person singular form in discourse between a married man and his married sister, and between a man and the husband of his sister's daughter (baadaaní). It is illustrated by hó, he, she, they, his, her, their, etc.; ha-lį́į́', his, her their horse; ji-dlą́, he drinks it; ho-níłtį́, I brought him, her.

3s. The third person form identified as *3s.* represents space, area or impersonal *it* as subject, object, or possessive pronoun, as in hoolzhiizh, time passed; ho-niiłdoii, I heated it (a space or room, in contradistinction to niiłdoii, I heated it - a tangible object).

3i. The third person form given as *3i*. represents an indefinite subject, object or possessor. It is roughly similar to English *someone*, *something*, (indefinite or unmentioned). All transitive verbs in Navajo must represent the direct object of verbal action by a pronominal prefix which must be *something*, *someone* *indefinite* if no definite object is expressed. Thus, yi-dlą́, he drinks *it*; but 'a-dlą́, he drinks (something not mentioned specifically). The indefinite pronoun subject or object is 'a-, often represented in verb constructions only as \'/ with elision of the vowel (da'jidlą́, they drink). 'a- does not occur disjunctively. Examples of other usages are: 'a-tsii', hair (i.e. something's hair); 'a-sh-dlą́, I drink; há'ádziih, speaking takes place (i.e. indefinite someone speaks - in contradistinction to haadziih, he speaks). When both the subject and the object of a third person verb form are indefinite and represented by 'a-, a single pronoun form represents both, as in the form 'a-dlą́, he drinks; or drinking takes place (someone indefinite drinks something indefinite).

Generally speaking, body parts and products, as well as geneological relations, do not exist without a possessor. One does not find hair, milk, flesh, heads, hands, or even fathers and grandfathers in existence without the connotation of possession by someone or something. They differ in this respect from stones, rivers, and mountains. Therefore, nouns of this type are expressed as constantly possessed forms in Navajo, and if no definite possessor is specified, the indefinite pronoun prefix 'a- must be used. Thus, 'a-tsii', hair (not tsii'); 'a-tsį', flesh (not tsį'); 'a-be' milk (not be').

In addition, one can be the primary or the secondary possessor of nouns of this class, in which case both must be represented by a pronoun prefix. Thus, shi-'a-be', my milk (secondarily possessed by me, but produced by mammary glands belonging to something unspecified); shi-'a-tsį', my (secondarily possessed) meat, etc. If the last two examples pertained to my own body they would be si-tsį', my flesh, and shi-be' my milk.

The Reciprocal pronoun prefix is generally translatable as *each other*, *each other's*, *one another*, etc. Thus, 'ał-k'i, on each other; 'ahíł-la', each other's hands; 'ahi-joot'į́, they see each other.

The same pronoun prefix forms are used as possessives with nouns and as the subject of postpositions.

The Reflexive pronoun prefixes are used with reflexive forms of the verb to indicate that the verbal action falls upon the actor himself. Thus, tá-'ádí-s-gis, I am washing myself (in contradistinction to táná-s-gis, I am washing it); 'ádi-yé-sh-ghį́, I killed myself (séł-xį́, I killed him). The reflexive also occurs as the subject of postpositions, as 'á-k'i, on self.

1. dpl. The first person plural pronoun is nihí, we, ours, us. Also, nihi-łį́į́', our horse; y-ii-dlą́, we drink it; nih-iiłtsą́, he saw us.

2. dpl. The second person plural pronoun is also nihí, you, yours, you. Ni-hi-lį́į́', your horse; gh-oh-dlą́, you (pl) drink it; nih-iiłtsą́, I saw you; nihi-deeshxą́ą́ł, I'll kill you (pl); nihi-dííghą́ą́ł, you will kill us (pl).

The Noun

1. Stem nouns. Nouns, in Navajo fall into several different classes. Like other Athabascan languages, and for that matter, other Nadene languages, there are a number of root nouns, many of which are simple verb stems used nominally. Thus, bąąs, hoop (naabąąs, it rolls about), The root nouns are monosyllabic, and include such common names for things as kǫ', fire; tó, water; bis, adobe, chííl, snowstorm; ch'ah, hat; dił, blood; sǫ', star; sis, belt, etc. Some root nouns change form when possessed, as tó, water; shito', my water; hééł, pack; shighéél, my pack; sis, belt; siziiz, my belt.

2. neuter verbal. Another type of simple nouns is constructed like a neuter verb, and is composed of a stem plus a prefix. Such are diné, man person; dibé, sheep; didzé, berry; nát'oh tobacco, cigaret, etc.

3. abstract verbal. A third noun type is composed of an abstract verb form used as a noun. Thus, halgai, plain, flatland (lit. area, it is white); ha'a'aah, east (lit. something roundish (the sun) comes up out).

4. agentive. Agentive nouns may be formed by suffixing one of the noun forming elements -í, -ii, -ígíí to a third person verb form, as 'iisxíinii, killer, murderer ('iisxį́, he committed murder, killed someone indefinite); 'adiits'a'ii, interpreter ('adiits'a', he understands, he hears something unmentioned); 'ani'įįhí, thief ('ani'įįh, he steals). The noun forming suffixes impart the meaning *the one who*, *that which* to the verb. Thus, the noun 'ani'įįhí means literally the one who steals (something unnamed or indefinite).

5. compound. Compound nouns are formed by combining simple nouns, or other parts of speech. Thus, tsésǫ', glass (tsé-, rock; -sǫ', star); tsi-ts'aa', box (tsi-, wood; -ts'aa', basket); łeets'aa', dish (łee-earth; -ts'aa', basket); tótł'iish, watersnake (tó-, water; -tł'iish, snake).

A noun and a postposition are combined in such compounds as tsintah, forest (tsin-, wood, trees; -tah, among); tséghi', canyon (tsé-, rock; -ghi', within); naakaiitah, Mexico (naakaii, Mexicans; -tah, among). A noun and a verb stem are combined in tsénił, stone axe, axe (tsé-, stone; -nił, pound); tł'ohchin, onion (tł'oh-, grass; -chin, smell). A noun and a verb form are combined in tsinaabąąs, wagon (tsin-, wood; -naabąąs, it rolls about); tónteel, ocean (tó, water; -nteel, it is broad, wide); gałbáhí, cottontail rabbit (gah, rabbit; -łbáhí, the one that is gray). Nouns are also formed by combining a postposition with a nominalized verb form, as in bá'ólta'í, teacher (the person for whom reading or counting takes place); bee'ótsa'í, pliers (the one with which grasping /_ as between the teeth_/ is done).

Some nouns are descriptive phrases, usually nominalized with one of the noun-forming suffixes mentioned above. Thus, naalghéhé bá hooghan, Trading Post, store (naalghéhé, merchandise; bá, for it; hooghan, home, hogan); 'atsiniltł'ish bee 'adinídíín, electric light ('atsiniltł'ish, lightning, electricity; bee, with it; 'adinídíín, light); béésh tó bii' ńlínígíí, water-pipe (béésh, metal; tó, water; bii', in it; ńlínígíí (ńlį́, it flows; - /_ n _/ ígíí, that which = the metal through which water flows.)

6. Gentilic. Nouns denoting clan or people are formed by adding the suffix -nii, people, to a

noun or verbal form. Thus, kiyaa'áanii, the Standing House people or clan (ki-, house; yaa'á, it towers up; -nii, people); béésh ńt'i'nii, the people along the railroad. The word dine'é, is also used to signify people, tribe, nation, as in naakaii dine'é, the Mexican people; the Mexican clan.

7. Locative. Most Navajo placenames are descriptive of geographic features. Thus, na'nízhoozhí, Gallup, New Mexico (lit. the bridge); tóta', Farmington, New Meixco (between the waters); tó naneesdizí, Tuba City, Arizona (winding waters). Some are named for persons or events, as bááh díílid, Fruitland, New Mexico (burnt bread); naat'áanii nééz, Shiprock, New México (tall chieftain = the Navajo name for former Superintendent Shelton).

8. Loan words. A few nouns have been borrowed from Spanish and English, but the number of such loan words is small. Somewhat after the fashion of German, Navajo tends to devise its own designations for new things, rather than borrow such names from other languages. Nouns like gohwéí, coffee (from Spanish café); 'alóós, rice (from Spanish arroz); and nóomba, number (from English number) are borrowed.

Singular and Plural Number. Navajo nouns may be singular or plural in number, as the context may require, and without change in form. Thus, ch'ah, hat; hats; tł'ízí, goat; goats; k'os, cloud; clouds, etc. However, some nouns, referring to kinship or age groups, may form a plural by the addition of a suffix -ké or -óó. Thus, 'ashkii, boy; 'ashiiké, boys; 'at'ééd, girl; 'at'ééké, girls; sitsóí, my grandchild; sitsóóké, my grandchildren; sik'is, my sibling (of same sex as myself); sik'isóó, my siblings.

A distributive plural prefix da- is used with nouns, verbs and pronouns to distinguish individual as against collective plurality. Thus, daakǫ', fires (scattered about, but looked at as a group of individual fires rather than collectively); chádaashk'eh, gullies (sg. cháshk'eh, gully); deiidlą́ (da-yiidlą́), we each (more than two) drink it; daabí, they (more than two, and each separately).

Whether a noun is singular or plural is apparent in the context in which it is used. Thus, diné t'óó 'ahayóí yiiłtsą́, I saw many people; diné ła' yiiłtsą́ I saw a man (diné; man, person, people, men); béégashii yah 'ahi'noolchą́ą́', the (two) cows ran in; béégashii yah 'ííjéé', the (more than two) cows ran in; béégashii yah 'eelghod, the (one) cow ran in (plurality in the instance of the verb run is indicated by three separate verbal stems, one referring to action by one animate object, another to action by two, and a third stem to action by more than two).

Noun Possession. When one noun is expressed as the possessor of another noun, the second noun has a possessive (3rd person) pronoun prefix, as in béégashii bitsee', the cow's tail (lit. the cow - his tail); 'ashkii bi-ch'ah, the boy's hat (the boy - his hat).

The Postpositions. In Navajo the postpositions perform a function comparable to that performed by the prepositions in English. Thus, -k'i, on; -yaa, under; -aa, to, about; -ch'į', toward; -á, for; -ił, with (accompaniment); -ee, with (instrumental), etc. The postpositions are bound forms, occurring usually with the pronoun prefixes of the same series attached to nouns as possessives. Thus, shi-k'i, on me; ni-yaa, under you; b-aa, to him; bi-ch'į', toward it; n-ił, with you; nih-á, for us, for you (pl); b-ee, with it, etc. Kin bich'į' yishááł, I am walking toward the house (lit. house it - toward I am walking along); tsé bee kin 'ííshłaa, I built a stone house (lit. stone it - with house I made it). The postpositions also occur as verb prefixes, as illustrated by the postposition -k'i, on, above, over, in such constructions as: bik'izdéez'į́į́, he watches over him; bik'ihashta', I am entertaining him; shik'iildo, it (fog, smoke) enveloped me.

The Particles. In foregoing paragraphs describing Navajo phonology, it was pointed out that each syllabic element (pronominal, adverbial, modal prefix, verb stem, etc.) that composes Navajo words has an inherent pitch or tone which can be altered only in conformity with morphophonemic laws governing such alteration. Thus, although Navajo is not spoken without varying pitch for emphasis, or for the connotation of anger, surprise, etc., the inherent highness or lowness of syllable tones must be carefully distinguished since tone differentiates meaning. The fact that Navajo employs tone to distinguish meaning in this manner places certain restrictions on the use of sentence and word pitch as a medium through which to express such overtones of meaning as surprise, incredulity, disgust, interrogation, exclamation, etc.

In English we drop our voice pitch at the end of a simple declarative sentence, and raise it at the end of an interrogative sentence, as in "the house is white"; "is the house white?" Or we can vary the meaning of the sentence, this is your car, by pronouncing one or another of the component words more loudly, and at a higher voice pitch than the others. Compare: this is your car; this is your car; this is your car; this is your car; etc. With each variation of sentence and word pitch, the meaning is subtly varied.

In Navajo, sentence and word stress is also used for similar purposes, but not in a manner totally paralleling English. If the final syllable of the last word in a sentence is high in tone, the sentence must end at a high voice pitch, regardless of whether it is declarative or interrogative. Thus, díí 'ashkii Kii gholghé, this boy is called Kee. The sentence ends at a high voice pitch because the stem -ghé is inherently high, and must contrast with the inherent low tone of the preceding syllable ghol-, although the sentence and word pitch may vary with *díí* uttered at a higher voice level than the rest of the words in the sentence. Sometimes a particle 'akon, often reduced to its \'/ (glottal stop) serves to mark the end of a sentence and the beginning of another, especially in narration, and in proceeding from one subject to a new one in rapid speech.

If the sentence díí 'ashkii Kii gholghé, this boy's name is Kee, is made interrogative, that fact must be indicated by use of one or more of the interrogative particles da' (introducing a question) and/or -sh, -ísh, -shą'. Thus, da' díí 'ashkii Kii gholghé? da' díísh 'ashkii Kii gholghé? díísh 'ashkii Kii gholghé? is this boy's name Kee? In each instance the interrogative particle in Navajo replaces the rising sentence inflexion of English to indicate a question.

In like manner, in Navajo, the enclitic particle -'as suffixed to a noun or verb connotes scornful disbelief, as in deesk'aaz'as, co-o-ld! you think it's *co-o-ld*! gah'as, a *ra-a-bbit*! In English the same effect is attained by vowel lengthening and falling pitch. Similarly, 'éí ga' shí 'ásht'į́, *I'm* the one who did it (not someone else, in which the particle ga' connotes the emphasis connoted by sentence pitch in English.

The particle *lá* in some contexts indicates that one has just ascertained something of which he had previously been unaware, as in díí tsé 'át'éé lá, why, *this* is a *rock*! (I had thought it was something else).

The Navajo language uses these and a number of other particles to express connotations expressed by sentence and word pitch in English. Thus, Navajos learning to speak English must master a new and foreign pattern involving voice pitch as a medium of differentiating meaning.

The Verb

The Navajo verb is extremely complex, and morphologically it is totally dissimilar from the familiar verb structures and categories which characterize English and other Indo-European languages. The complexity of this feature of the Navajo language has frustrated many teachers and other Bureau employees in attempting to learn to speak Navajo, even when a working knowledge of the language would have been invaluable to them.

The Navajo verb has been described by many students of the language, including Dr. Harry Hoijer (whose series of articles in the International Journal of American Linguistics of the Apachean verb have been helful in preparing the present sketch); Dr. Edward Sapir, Fr. Berard Haile, Dr. Gladys Reichard, Young and Morgan, and others.

For the purposes of the Yearbook, we will provide only a cursory sketch, touching on some of the more important features of verb structure, grammar, etc., and omitting many details.

Composition. Navajo verbs are composed of complexes of monosyllabic tensemodal, deictic, subjective, and objective pronominal, adverbial, postpositional and other types of elements prefixed to a monosyllabic stem or root. For the most part, the prefixes that make up these complexes are bound forms - i.e. they have no independent existence (they are like English -ing, for example). In English, adverbs, pronouns, and the like are free, independent forms.

The Stem. The verb stem denotes action or state of being in a generalized or abstract sense, without reference to agent, manner, time, recipient, etc. Some verb stems classify the objects to which they refer on the basis of shape, size, number, animate or inanimate nature, and the like. Thus, the stem -'*aah* refers to the *handling* of a single roundish object, in contrast with the stem *tiih*, with reference to the *handling* of a single slender, stiff object; -*lé* with reference to a single slender, flexible object; -jááh, a profusion of small objects; -nííł-, plural separable objects; -jooł, non-compact matter (e.g. wool) etc. The term *handle* is here used with the broad meaning of acting on the object to move it or change its position in some manner.

If the agent (the subject of the verb) causes the object to move *to* someone, the stems given above (in their imperfective mode forms), modified by certain modal and pronominal prefixes, translate English *give*, *bring*, *take*, as in the examples: tsé shaa ní'aah, give (bring, take) me the rock (shaa, to me; ní'aah, you are in the act of causint it - a single roundish object - to move completively); nát'oh shaa nítiih, give me a cigaret; tł'óół shaa ńlé, give me the rope; naaltsoos shaa níłtsóós, give me the (sheet) of paper; k'eelghéí shaa níjááh, give me the seeds; 'ásaa' shaa nínííł, give me the pots; 'aghaa' shaa níłjooł, give me the wool, etc. There is no single verb which, in Navajo, can fit the general concept denoted by English *give*, because Navajo expresses this action as one in which an agent causes an object of certain shape, number, etc. to move to someone.

The same stems, with other prefixes, expressconcepts rendered in English by a variety of unrelated verbs. Thus, for example, with the prefixes ńdi-, the meaning becomes pick up, lift, choose, as in tsé ńdii'aah, pick up the rock (i.e. cause a single roundish object to move upward from a surface); ńat'oh ńdiitiih, pick up the cigaret, etc. Again, with the prefixes nini- the meaning becomes set down, as in tsé niní'aah, set the rock down (i.e. cause it to move down to a surface); with náhidi-, the meaning becomes turn over, as in tsé nahidee'aah, turn the rock over; didi-, put in the fire, as tsé didí'aah, put the rock in the fire; 'ałnání-, exchange position, as in tsé 'ałnánínííł, exchange the positions of the rocks (i.e. cause them to move to each other's place), etc. (In the examples given above all verb forms are in the second person singular, imperfective mode, used as an imperative.)

Thus, the abstract concept handle, with respect to specific classes of objects, is modified by means of various prefixes to express the meanings connoted by a number of unrelated verbs in English. Give, put, take, carry, pick up, choose, lift, set, bring, exchange, turn over, etc. are all expressed by constructions employing the handle stems, with variant adverbial prefixes.

This feature of Navajo will receive further consideration in a section of the present sketch devoted to derivation.

The number of stem forms varies with regard to given Navajo verbs, from a single form to as many as seven forms, each variant corresponding to different modes and aspects of the verbal action - something like sing, sang, sung.

Mode

Mode is that distinction which denotes the manner in which the verbal action or state of being is conceived, whether incomplete, complete, in progress, repeated habitually, desired, etc., while the aspect refers to the kind of action, whether momentaneous, continuative, occurring once, occurring in a series of repeated actions, etc. The prefix complex of the verb base distinguishes mode and aspect, and the stem often varies in form to indicate similar distinctions.

The imperfective mode connotes the fact that the action of the verb has begun, but has not been completed. Using the stem -'aah (handle a roundish object) for purposes of illustration, we have the momentaneous imperfective form taah yish'aah, I am in the act of putting it in the water (an action which I have begun, but which I have not completed, and one which will end the instant the object I am causing to move breaks through the surface of the water - a momentaneous action). It may be translated as a present tense in English, although in Navajo the imperfective is not as much concerned with the element of time, as with the state of completion of the action.

The imperfective mode may also be continuative in aspect. That is, the action of the verb has begun, and has not been completed but, unlike the momentaneous action of putting an object into water, the action is represented as continuing over an indefinitely long period of time. When the aspect is continuative, the imperfective mode requires the stem form -'á, instead of the momentaneous form -'aah. The continuative imperfective in Navajo may also be translated as a present tense form in English, as in naash'á, I am carrying it about; béésh naash'á, I carry a knife.

The perfective mode connotes the fact that the action of the verb is complete, and is thus translatable as a past tense in English. The stem form (handle a roundish object) is -ą́ for the momentaneous perfective, as in taah yí'ą́, I put it in the water (I completed the act of putting it in the water).

The progressive mode describes the action or event as being in progress, and the stem form is -'ááł. Thus, yish'ááł, I am carrying it along.

The usitative mode describes a verbal action as one which is habitually performed. The stem form in the usitative mode is -'ááh. Thus, taah yish'ááh, I habitually put it in the water.

The iterative mode connotes repetition of the action, and requires the same stem as the usitative mode. Thus, taah násh'ááh, I repeatedly put it in the water.

The optative mode connotes desire or wish, and with respect to the handle-verb (a roundish object), momentaneous aspect, the stem form is -'ááł. Thus, taah ghósh'ááł (laańaa), (would that) I might put it in the water.

In the transitional aspectual forms describing an event - a sickness - as coming into being up alongside one, the progressive mode form of the stem is -'aał (instead of -ááł), as in shąąh dah hwiidoo'aał, I'll become sick; the transitional imperfective stem is -'aah, as in shąąh dah hoo'aah, I'm becoming sick; the perfective stem form is -'a' (instead of -'ą́), as in shąąh dah hoo'a', I became sick; the neuter perfective stem is -'ą́, as in shąąh dah haz'ą́, I am sick; the usitative and iterative stem is -'aah, as in shąąh dah hoo'aah (dah náhoo'aah), I habitually (repeatedly) get sick; and the optative stem is -'aah, as in shąąh dah hoo'aah (lágo), (would that) I might not get sick.

Thus, with relation to the several modal and aspectual forms of the verb meaning to handle a roundish object, the stem forms -'ááł, -aał, -'aah, -'ááh,

-'á, -'ą́, 'a' occur in conjunction with the various prefix complexes.

The semelfactive aspect (action happening one time) is distinguished from the repetitive aspect by both stem form and prefix complex in such verb constructions as sétał, I gave him a kick; nánéétáál, I gave him a kicking (i.e. a succession of kicks).

Stem Classifiers

Navajo verbs fall into four classes, distinguished in part by a prefix occurring in position immediately preceding the stem, and called a stemclassifier; in part by the subjective pronominal prefix forms, and by other features of the verb construction. The verb classes are conveniently identified on the basis of the classifier involved in a given construction as zero-class, d-class, ł-class, and l-class (the stem classifiers are zero, d, ł and l). The stem classifiers are illustrated in: the perfective mode stem -jįzh, smash, crush, has the ł-classifier in the construction shéłjįzh (-łjizh), I crushed it; similarly with the perfective mode stem -ghod (one animate object ran), the stem classifier -l- is found, as in yílghod, he arrived running. In the verb yóbé, he is picking them (berries, etc.), there is no stem classifier - i.e. the classifier is zero, and the construction is called a zero-class verb.

d-class verbs are distinguished by the prefix -d-, or a morphophonemic variant, in position immediately preceding the stem. (It indeed occurs as -d- in some Athabascan languages in instances where it undergoes assimilation to the stem initial consonant in Navajo, as in Carrier nahadna, corresponding to Navajo naha'ná, he moves his limbs or body about).

In conformity with morphophonemic laws governing assimilation, the d-classifier combines with various stem-initial consonants in different manners. Thus, it becomes t' before stem-initial \'/, and \'/ before stem-initial m or n as illustrated in the forms yoo'į́, he sees it: yit'į́, it is seen; yóó' 'íímááz, it (a spherical object) rolled away: yóó' 'o'oo'mááz, the action of rolling away took place; hiná, he is alive: naha'ná, he moves about. Similarly, a gh-initial becomes g when preceded by the d-classifier, as in 'aséghé, I got married: náiishgeh, I repeatedly get married. Before many stem-initials, the d-classifier becomes zero, and the only clew to its presence is the characteristic pronoun prefix set required by the d-classifier in the imperfective and perfective paradigms of the verb.

The verbal base. The verb base is composed of a number of modal, adverbial, postpositional and other types of prefixes, of which some of the more common are: di-, future tense (deesh'áát, I'll bring it); yi-, imperfective mode (taah yish'aah, I'm putting it in the water); yi-perfective mode (taah yí'ą́, I put it in the water); ni-, perfective mode (baa ní'ą́, I brought, gave, it to him); si-, perfective mode (séł'ą́, I keep it); náá-, nááná-, semeliterative, (náádeesh'ááł, I'll pick it up); ni-, n-, down, completive (ni' ndeesh'ááł, I'll set it down); 'a-, into an enclosed space (yah 'adeesh'ááł, I'll bring it in); ha-, up out, up (hadeesh'ááł I'll bring it up); ya-, up into the air (yaa'á, it protrudes up into the air); ch'í-, horizontally out (ch'ídeesh'ááł, I'll carry it out); hi-, successive actions (hideesh'ááł, I'll bring it one time after another); hada-, down (hadadeeshááł, I'll go down, descend); ná-, ní-, ń-, back, returning (ńdeeshdááł, I'll go back, return); naa-, na-, ni-, n-, about, around (naaghá, he walks about); 'ahéé-, around in a circle ('ahéénílshghod, I ran around in a circle); 'ahá-, in half ('ahádeeshgish, I'll cut it in two); nihi-, in many pieces (nihideeshtih, I'll smash it to bits); k'í-, in two (k'ídeeshnish, I'll break it in two).

The Verb Paradigm

The Imperfective Mode. There are two general types of paradigm in the imperfective mode, one of which is disjunctive (without adverbial or other prefixes preceding the modal prefix yi-), and the other of which is conjunctive (adverbial or other prefixes precede the modal prefix and replace it, with certain morphophonemic assimilations). These are illustrated in the following examples:

The Paradigm of the Imperfective Mode

Disjunctive

PERSON	Momentaneous Aspect
1. sgl.	łeeh yish'aah
2. sgl.	łeeh ni'aah
3o.	łeeh yi'aah
3a.	łeeh ji'aah
1. dpl.	łeeh yiit'aah
2. dpl.	łeeh ghoh'aah

Conjunctive

PERSON	Momentaneous Aspect	Continuative Aspect
1. sgl.	dish'aah	naash'á
2. agl.	dí'aah	nani'á
3o.	yidi'aah	nei'á
3a.	jidi'aah	nji'á
1. dpl.	diit'aah	neiit'á
2. dpl.	doh'aah	naah'á

łeeh yish'aah, etc., I am in the act of burying it (putting it into the ground - a single roundish object). The prefix yi- occurs in all persons except the second person singular (where it is replaced by subjective pronoun ni-, you), in the 3o. (where it is replaced by the objective pronoun yi-), and in the 3a. (where it is replaced by the deictic prefix ji-, he, she). In the second person plural y(i)- becomes gh- before -o.

If adverbial or other prefixes precede the imperfective mode prefix yi-, the latter drops out, and in the conjunctive paradigms a different subject pronoun set is required in some persons of the verb as illustrated in:

dish'aah, etc., I am in the act of starting to carry it (a round object). The prefix di- (inception) replaces yi- and takes a high tone in the second person singular to represent the subject pronoun -ni-, you. With the adverbial prefix ha-, up out, -ni- remains, however, as in hani'aah, you are in the act of carrying it up out.

naash'á, etc., I carry it about (a round object). The prefix na-, about, replaces yi-, and the verb stem changes to -'á, the continuative aspectual form.

The Perfective Mode. There are three perfective mode paradigms, distinguished in part by the modal prefixes yi-, ni- and si. The stem classifier determines which of several subject pronoun sets are required in a given verb construction. The ni-perfective is illustrated for a zero-class verb (perfective mode stem -'ą́), and a d-class verb (perfective mode stem plus d-classifier -t'ą́), as follows:

NI-PERFECTIVE

PERSON	zero-class	d-class
1. sgl.	ní'ą́	biih neesht'ą́
2. sgl.	yíníí'ą́	biih nííníít'ą́
3o.	yiní'ą́	yiih noot'ą́
3a.	jiní'ą́	biishnoot'ą́
1. dpl.	niit'ą́	biih niit'ą́
2. dpl.	noo'ą́	biih nooht'ą́

ní'ą́, I brought it (a round object).
biih neesht'ą́, I put my head into it (i.e. caused my own round object to move into it. It will be noted that -sh- represents the first person subjective pronoun in d-class verbs, whereas it is represented by a high tone in zero-class verbs. Other adverbial prefixes produce different morphophonemic changes, as yighaít'ą́ (instead of yighainít'ą́), he took it (a round object) away from him by force, and bighajít'ą́ (instead of bighazhnít'ą́), he (3a. person) took it away from him by force.

SI-PERFECTIVE

PERSON	zero-class	d-class
1. sgl.	dah sé'ą́	'ádą́ą́h dah hosist'ą́
2. sgl.	dah síní'ą́	'ádą́ą́h dah hosínít'ą́
3o.	dah yiz'ą́	'ádą́ą́h dah hast'ą́
3a.	dah jiz'ą́	'ádą́ą́h dah hojist'ą́
1. dpl.	dah siit'ą́	'ádą́ą́h dah hosiit'ą́
2. dpl.	dah soo'ą́	'ádą́ą́h dah hosooht'ą́

dah sé'ą́, I set it (a round object) upon a shelf.

'ádą́ą́h dah hosist'ą́, I committed a crime (i.e. I cause spatial it - a sorrow - to move and set up /_ like a round object _/ alongside myself. Cf. shą́ą́h dah haz'ą́, I am sick /_ it sets up alongside me_/).

YI-PERFECTIVE

PERSON	zero-class		d-class
1.	taah yí'ą́	hé'ą́	yishdlą́ą́'
2.	taah yíní'ą́	híní'ą́	yínídlą́ą́'
3o.	taah yiyíí'ą́	yiiz'ą́	yoodlą́ą́'
3a.	taah jíí'ą́	jiiz'ą́	joodlą́ą́'
1.	taah yiit'ą́	hiit'ą́	yiidlą́ą́'
2.	taah ghoo'ą́	hoo'ą́	ghoohdlą́ą́'

taah yí'ą́, I put it (a round object) in the water.

hé'ą́, I brought it one time after another (a round object). (The prefix hi-, describing action as occurring by segments, joins with the perfective modal prefix yi-.)

yishdlą́ą́', I drank it.

The Progressive Mode. The progressive mode forms of the verb are also distinguished by a prefix yi-, which produces certain morphophonemic alterations when preceded by adverbial, pronominal, and other types of prefixes, as illustrated in the following examples:

The Paradigm of the Progressive Mode

		Disjunctive	Conjunctive	
PERSONS			With prefixed ni-	With objective pronouns
1.	sgl.	yish'áát	neeshkał	neeshtééł
2.	sgl.	yí'ááł	nííłkał	shííłtééł
3o.		yoo'ááł	yinoołkał	shoołtééł
3a.		joo'ááł	jinoołkał	shijoołtééł
1.	dpl.	yiit'ááł	nii lkał	niiltééł
2.	dpl.	ghoh'ááł	noołkał	shoołtééł

yish'ááł, I am carrying it (a round object) along.

neeshkał, I am herding them along. Here a prefix ni- precedes the progressive prefix yi-, combining with it as indicated.

neeshtééł, I am carrying you along; you sgl. -me; he- me; he-me; we-you; you dpl-me. Here the objective personal pronouns are prefixed to progressive prefix yi- producing morphophonemic changes comparable to those produced by prefixation of ni- in the preceding example.

Compare the formation of the paradigm of the future tense.

The Future Tense. The future tense is formed by prefixing di- (an inceptive prefix) to the progressive mode forms, producing morphophonemic assimilations similar to those described in connection with the progressive mode paradigm. Thus:

THE FUTURE TENSE

PERSON		Simple	Compound	
1.	sgl.	d eesh'ááł	bizadínéesht'ááł	hideesh'ááł
2.	sgl.	díí'ááł	bizadíníít'ááł	hidíí'ááł
3o.		yidoo'ááł	yizadínóot'ááł	yidiyoo'ááł
3a.		jidoo'ááł	bizadízhnóot'ááł	hizhdoo'ááł
1.	dpl.	diit'ááł	bizadíníit'ááł	hidiit'ááł
2.	dpl.	dooh'ááł	bizadínóoht'ááł	hidooh'ááł

deesh'ááł, I shall bring it (a round object). The future tense forms are also used in an obligatory (imperative) sense.

bizadínéesht'ááł, I shall kiss her (i.e. I shall cause my own round object - my head - to move to her mouth). In this example the prefixes biza-, to her mouth, di- and ni- combine in position preceding the progressive prefix.

hideesh'ááł, I shall bring it (a round object) one time after another. The prefix hi- becomes y- in the 3o. person form.

The Optative Mode. The optative mode employs a prefix gho-, the consonant of which (gh-) usually drops out when preceded by another prefix.

The Paradigm of the Optative Mode

	Simple	Compound	
PERSON		gho- + -yi-	hi- + -gho-
1. sgl.	ghósh'ááł	ghoostsééł	hósh'ááł
2. sgl.	ghoó'ááł	ghóółtsééł	hóó'ááł
3o.	yó'ááł	yoołtsééł	yiyó'ááł
3a.	jó'ááł	joołtsééł	jiyó'ááł
1. dpl.	ghoot'ááł	ghooltsééł	hoot'ááł
2. dpl.	ghooh'ááł	ghoołtsééł	hooh'ááł

ghósh'ááł, that I might bring it (a round object). A rising tone on the lengthened vowel of the prefix represents the subjective pronoun -ni- (you) in the second person singular while, in the 3o. and 3a. person, the objective pronoun prefix yi-, and deictic ji-, replace gh-. The optative usually requires a particle laanaa, would that, or lágo, would that not.

ghoostsééł, that I might see it (-tsééł, progressive stem of verb see. The verb see has a prefix yi- with which the optative prefix joins in the example given. (Cf. yideestsééł, I shall see it.)

hósh'ááł, that I might bring it one time after another. As in other paradigms the prefix hi- becomes y(i)- in 3o. (and 3a).

The Usitative and Iterative Mode paradigms are formed like the corresponding imperfective paradigm, but in many verbs there is a distinct stem form, and the iterative mode paradigm adds the prefix ná-, ní, ń-. Thus, dish'aah (imperfective), I am in the act of starting to carry it (a round object); dish'ááh, I habitually start to carry it (usitative); ńdísh'ááh, I repeatedly start to carry it (iterative). The habitual nature of the act is often made clear with usitative mode forms by adding the usitative particle łeh, habitually.

THE NEUTER VERBS

There is a class of verbs which express state of being, quality, appearance and other attributes, known as neuter verbs. These are conjugated in only one paradigm, in contradistinction to the active verbs, which may be conjugated in as many as seven paradigms, as illustrated in foregoing examples.

The neuter verbs are formed as imperfectives to denote qualities and attributes of the type usually expressed by adjectives in English. Navajo does not have a word class corresponding to the adjectives in English, except as the neuter verb forms function in a similar capacity, and with exception of a few unconjugatable forms such as yázhí, little.

The neuters are also formed as si-, ni- or yi- perfective forms, and the connotation is often that the state of being expressed by the verb has come about as the result of prior action. Thus, yiizį', I stood up; sézį́, I am standing. The following paradigms will exemplify the formation of both the imperfective and the perfective neuters:

Imperfective and Perfective Neuter Paradigms

1.	sgl.	sézį́	nisdaaz	łinishgai
2.	sgl.	sínízį́	nídaaz	łinígai
3.		sizį́	nidaaz	łigai
3a.		jizį́	jídaaz	jilgai
3s.				halgai
1.	dpl.	siidzį́	niidaaz	łiniigai
2.	dpl.	soozį́	nohdaaz	łinohgai

1.	sgl.	łinishk'aii	dinishjool
2.	sgl.	łiník'aii	diníjool
3.		ł[illegible]'aii	dijool
3a.		jilk'aii	jidijool
3s.			hodijool
1.	dpl.	łiniik'aii	diniijool
2.	dpl.	linohk'aii	dinohjool

sézį, I am standing; I am in a standing position (neuter perfective).

nisdaaz, I am heavy. An imperfective neuter formed with the prefix ni-. (Cf. the same stem in naałdaaz, it fell down (a heavy mass composed of plural objects, as a quantity of dirt or sand, a roof, etc., and the noun das, weight).

linishgai, I am white. An imperfective neuter formed with the prefix łi-, a prefix occurring with forms signifying color, taste (łikan, it is sweet), inflammability (łikon /_ cf. kǫ', fire_/, it is inflammable). It also occurs with the verb łíshécháázh, I took unfair advantage of him; I cheated him.

łinishk'aii, I am fat.

dinishjool, I am round like a ball. The 3s. form, referring to space or area is used in the expression bił hodijool, he is a blockhead (i.e. everything is round like a ball with him).

An example of the ni-perfective neuter is ní'á, it extends horizontally outward (as a pole from a wall, a mountain range, etc. The yi-perfective neuter is illustrated in dził yíjiin; Black Mountain (the mountain that extends black, black line of mountain), and taah yí'á, it extends into the water; didíí'á, it extends into the fire.

The Passive Voice

The passive voice forms in Navajo are of two types: a simple passive and an agentive passive. Both types are formed with the d- or l- classifier, (d if a zero-class verb, and l if an ł-class verb). The simple passives are constructed by prefixing the modal and adverbial elements of the verb base, with a d- or l-classifier, directly

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to the stem. The simple passives can connote action of the verb falling only on a 3rd person direct object, without reference to any agent of the action. Thus, tsé shaa yiní'ą́, he brought me the rock; tsé shaa yit'ą́, the rock was brought to me; yiyííyą́ą́', he ate it; yidą́ą́', it was eaten; 'aghaa' hayííłjool, he carried the wool up out; 'aghaa' haaljool, the wool was carried up out. But not shíídą́ą́'*, I was eaten, shííltį́*, I was brought, etc., with the action of the verb falling on a direct object other than a simple 3rd person. When the object of the verb is other than the third person (3. or 3o.), the agentive passive must be used, indicating that an unspecified agent brought the action or state about.

The agentive passive is constructed with a prefix -'adi- (-'di-), as in shi'doodą́ą́', I was eaten (shííyą́ą́', he ate me); shi'dooltééł, I am being carried along (shoołtééł, he is carrying me along; yiltééł, he is being carried along, etc.).

Word Order and Sentence Construction

The word order and sentence construction of Navajo is illustrated in the following text with interlinear translation.

Shadahastóí	ńt'éé'	'índa dashimá sání
My Elders	that were	and my-grandmothers
ńt'ee'	Naakaii Dine'é	danlį́įgo,
that were	Mexican Clan	they-being,
hoojoobá'ígo	Hwéeldi	hoolghéédę́ę́'
in-hardship	Ft. Sumner	place-called-from

ninádá'iishjidgo
they-having-returned-packing-things-on-their-backs

kwii Lók'a'jígai hoolghéegį kéédahat'į́į́
here Lukachukai place-called-at they-live

ńt'éé' Ko dóó shį́į́ haakai
it was. Here-from probably they-came-out

nahalin silį́į́'. Dleesh Bii' Tó
it-appears it-became. Clay in-it water

hoolghéegi dahooghan ńt'ée'go
place-called-at hogans there-being (past)

dah 'adiiná jiní naghái
off they-started-to-move it-is-said yonder

dził báátis gó'ąą. 'Ákǫ́ǫ́
mountain over-it beyond. Thither

'oonéełgo dahwiiłkaahgo
they-moving-along they-passing-night-while

'ákwii shi'dizhchį́ jiní Ghąąjį'
there I-was-born it-is-said October

gholghéego ńdízídígíí daashin t'áá
it-being-called month-the was-it? just

'éí bighi' jiní tł'ée'go
that-one it-in it-is-said. night-being

hááhgóóshį́į́ deezhchíilgo ts'ídá 'ákóne'
strongly it-snowing exactly in-there

shi'dizhchį́ jiní shichai
I-was-born it-is-said my maternal grandfather

nt'éé' Naakaii Dine'é Łigaii
who-was Mexican Clan white'one

gholghéé ńt'éé' dóó ła' dó' Diné
he-is-called it-was and one also Man

Táchéhé ni' Bighe' gholghéé
Sweathouse-one former his-son he-is-called

ńt'éé' 'éí shį́į́ t'éiyá diné
it-was that-one probably only men

nlį́įgo dóó sáanii dó' díkwíí
they-being and womenfolk also how-many

shį́į́ kwii shaa naanish bííghą́ą́'.
probably here on-me work it-killed-them.

shichai tł 'ízí
My-maternal-grandfather goat

cho'ádinii 'ayóí da
testicles-none-the-one remarkable

'át'é halį́į́' ńt'ée'gc 'éí
it-is his-pet it-being (past) that-one

'ákwii jiisxį́įgo hááhgóóshį́į́
there he-having-killed-it strongly

diné bił dahózhǫ́ǫgo
people with-them things-being-beautiful

da'oolghal jiní.
they-ate (meat) it-is-said.

Free Translation. My ancestors, old men and grandmothers, belonged to the Mexican Clan, and they returned in hardship from Fort Sumner, packing their possessions on their backs. They used to live here at Lukachukai. It was as though it was their home country. They started moving their residence to a place called White Clay Spring where there were some hogans, it is daid, over beyond yonder mountain. While they were passing the night on the way, I was born, I am told. It was in the month of October, I guess, at that time of the year. It was night, and a heavy snow was falling when I was born. My maternal grandfather was known as White Mexican Clansman and there was one also called the Son of Former Sweathouse Man - those were the only men in addition to several womenfolk. They all worked hard on me. My grandfather had a pet wether goat which he killed there, after which the people feasted happily, I am told.

THE LEARNING OF ENGLISH AS A FOREIGN LANGUAGE BY NAVAJO BEGINNERS

Most Navajo children enter school with little or no previous experience in speaking and understanding the English language, and most of the teaching personnel in schools serving Navajo children have had no previous experience in the teaching of English as a foreign language. The resultant problem complex can be very frustrating to both the children and the teacher. Sometimes teachers develop more or less effective techniques of instruction, based largely on trial and error, and evolved gradually over the years from classroom experience. In other instances, teachers do not remain long enough on the Reservation to develop a system through which to cope effectively with the problem of language learning on the part of beginning students who do not enter school already possessed of a speaking knowledge of English. Few teachers acquire the knowledge of Navajo language and culture necessary to permit them to analyze the problems confronted by Navajo beginners in the learning of English.

Theoretically, one can best learn a new language by "wiping the slate clean", in the sense that he approaches the project without reference to the sounds, grammatical construction, word classes, meanings and other features of his mother tongue. However, for many and varied reasons, this ideal approach is not often possible, partly because of the influence of previously acquired language habits on the part of the learner.

The learner tends to identify the sounds of a new language with those which pertain to his own speech system, substituting the latter for the sounds of the new language wherever there is some similarity, real or imagined. The average English speaking high school student, attempting to mimic and distinguish such unfamiliar vowel phonemes as those in French *peu*, *pu*, *soeur*, or to reproduce the pronunciational destinction between Italian *fato* and *fatto* might be taken as cases in point. The familiar vowel phoneme of English *put* is a handy substitution for the French vowels in the examples given above, and the two Italian words may be reproduced without distinction between the single and double consonant. Again, the English speaking person learning to pronounce Navajo is likely to mishear and mistakenly identify the Navajo phoneme *dl* as *gl*, saying *glo* for Navajo *dlo*; the voiceless *ł* of Navajo may sound like English *th*, *thl* or *lth* to the beginner; and he will probably substitute *kl* for the Navajo phonemes *tł* and *tł'* saying *kla* for *tłah*, and *doklish* for *dootł'izh*.

Such substitutions are commonly made by beginners whenever the sound system of the familiar language offers a phoneme which approximates, or which can somehow be identified with, a sound of the new language. When there is no familiar phoneme that offers a reasonably close approximation to one in the new language, the learner often flounders, substituting the best "approximation" he can, whether it is understandable to speakers of the other language or merely an unintelligible noise. When finally he has developed an approximation that is intelligible, he may discontinue efforts to improve reproduction of the new phoneme, leaving well enough alone, and speaking the language with a more or less noticeable "*accent*", as we commonly refer to the degree of faulty approximation attained on the part of persons learning foreign languages to the sounds of those languages as they are spoken by native speakers.

So far as the accurate reproduction of new speech sounds is concerned, the learner is faced by a dual problem of (1) learning to reproduce more or less familiar sounds in a way to which he is unaccustomed; and (2) learning to reproduce sounds in the new language of a type that have no correspondents in his own language. To **rephrase** the problem in a specific example, the learner of Spanish must learn to reproduce the sound represented in that language by the letter *r* as an alveolar flap in such words as Spanish *Sor* sister, instead of as the inverted *r* sound to which he is accustomed in English *sore*; and if he learns Navajo he must acquire the ability to produce such entirely unfamiliar sounds as Navajo *tł'* in *tł'ee'*, for example. Thirdly, he must learn to reproduce the more or less familiar types of sounds in unfamiliar positions within the words of the new language. For example, the English speaker is accustomed to the phonemes *ts* in word or syllable final position, as in *nits*, but to reverse it and reproduce it in initial position, as in the Navajo word *tsin*, wood, constitutes a problem at first, both of identification and reproduction. Navajo *sin*, song, *tsin*, wood, and *ts'in*, bone, may all sound alike to the beginner.

Beyond the phonological problems involved in the learning of a new language, there are problems of establishing the meaning of words, identifying word classes, inflection, syntax and the like. The words of one's own language may and may not be coterminous, in their scope of meaning, with corresponding words in the new language. So far as their range of meaning is concerned, the corresponding terms in two or more distinct languages rarely correspond to each other exactly; it is rare that the meaning of a term in one language may be superimposed on a corresponding term from another language like two circles of the same dimensions. Usually, one circle overlaps the other, because the range of meaning is not identical. For example, English distinguishes three color shades by the terms *blue*, *green* and *purple*; Navajo uses one term *dootł'izh*, to describe all three, and if greater specificity is required it is accomplished by comparison with water scum for *green*, and with the wild four o'clock for *purple*. The resultant terms would be translated literally as "blue like water scum"; "blue like the wild four o'clock". Again, *łitso* is generally translatable as yellow, but it is applied to situations in Navajo where English speaking persons would use the term *green* or *light green*. The Navajo word for *fire* is *kǫ'*, but *kǫ'* cannot function in Navajo in the sense of "fire the gun", "fire an employee", and the like. Again the English verb *have* may be translated into Spanish either as *haber* or *tener* depending upon specifics of meaning and usage; English *be* can be translated either by Spanish *ser* or *estar*, or by Navajo *nlį́* and 'át'é (he is) or by si'ą́, silá, sitį́, sitą́, etc. (*it is* in position, referring to object classes), but the range of meanings and manner of usage of these terms are highly divergent in the three languages involved. Thus, the learner is not confronted by the problem of finding *the word* in a foreign language corresponding to a word in his own,but with the many sided problem of identifying and learning the words and terms in the new language as they apply to different situations; different terms in the new language may be required to express the different facets of meaning attaching to a term as he is accustomed to using it in his native speech.

With reference to word classes, the speaker of English is used to that category known as adjectives, and the absence of a closely corresponding class in Navajo may pose a problem at first; similarly, such features as grammatical distinctions in gender or number pertaining to one language, but absent in another, pose a problem for the learner.

If the slate could be wiped clean, indeed, and if the learner could proceed without reference to his own speech system or speech habits in all situations involving the learning of a new language, many problems would not be important or would not even arise. However, acquired habits of speech, on a par with fixed habits of behaviour, are strong forces and must be taken into account in language learning, especially under the conditions surrounding the Navajo beginner on the Reservation where Navajo remains the most common means of communication.

The foregoing sketch of the Navajo language was provided in order to describe the salient features of Navajo. Many of the problems of the Navajo beginner, and by extension, of the teacher of English as a foreign language to Navajo beginners, become apparent after study of the Navajo speech system. However, some of these problems will be pointed out in detail in succeeding paragraphs to focus the attention of teachers in those areas requiring special attention, and to explain in specific terms some of the problems faced by the learner. Existing speech habits not only affect the learning process, but once faulty speech habits are acquired with relation to the new language, they often become fixed and difficult to break. For example, the use of a glottal stop to separate vowel initial words from preceding words in English sentences, carried over by Navajo learners from their own language, is a faulty speech habit characteristic of many English speaking Navajos, and one that might have been avoided if the learner had not been allowed to carry it over and establish it as an English habit of speech in the beginning.

PHONOLOGY

The Vowels. The vowel system of Navajo is briefly described in the section on Navajo phonology. A review of that portion of the sketch of the language points to the fact that the vowel system is a simple one, composed of only four distinctive or basic vowel phonemes: *a*, *e*, *i*, *o*, pronounced approximately as they are in English *father*, *met*, *it* and *wrote*, but exhibiting such distinctive features as *vowel length*, *nasalization* and *fixed tone* in Navajo. The allophones or variants of these phonemes were not described nor is it within the scope of the present sketch to describe them in detail. (4)

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(4)
See "Navajo Phonology", by Harry Hoijer, Publ. by The University of New Mexico Press, 1945, for a detailed description of Navajo Phonology.

The vowel system of English (5) differs from that of Navajo in several essentials, including the fact that (1) vowel length, tone and nasalization are not used to distinguish meaning in English, (2) English exhibits a greater variety of vowel sounds than does Navajo; and (3) English uses stress as a distinctive feature (Cf. attribute as a noun and attribute as a verb). In the latter language, there are two categories of vowels, distinguished as primary and compound. The latter include a series of dipththongs or triphthongs composed of a primary vowel in combination with one or more semi-vowels. These are functionally equivalent to the simple or primary vowels, in English, and are described below:

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(5)
See "An Outline of English Structure":, by Trager, Geo. I, and Smith, H.L., Studies in Linguistics, Occasional Papers No. 3, Publ. 1951, Norman, Oklahoma, for an exhaustive study of English Phonology, See also "Language", by L. Bloomfield, Publ. Henry Holt & Co.

THE BASIC VOWEL SYSTEM (6)
Navajo - English

Class	ENGLISH			NAVAJO		
	Front	Indifferent	Back	Front	Central	Back
	i (bit)		u (put)	i (shí)		
Primary	e (bet)		o (love)	e ('abe')		o (hó)
	ɛ (bat)		ɔ (bought)			
		a (alms)			a (gah)	
Semivowels	w		y			
	iy (see)		uw (do)			
Compound	ey (they)		ow (go)	ei ('éí)		
	ay (buy)		ɔy (boy)	ai (xai)		oi ('ayóí)
	aw (now)		yuw (few)			

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(6)
The form of American English used for purposes of illustration in the present sketch is that known as the "Standard Midwestern American Dialect." There are many divergent pronunciational forms in other regions of the United States.

The above description bears no relationship to the traditional manner of description of English vowels in terms of "length" - e.g. the description of the compound vowel (ey) in hate (heyt) as "long ā" in contradistinction to the "short ă" (ɛ) of hat (hɛt). Vowel length is not a distinctive feature of English, and "length" is not the distinguishing feature in the examples given above.

Generally speaking, there is greater tenseness of the tongue and other muscles in the articulation of the Navajo vowels than in the case of English (Midwest dialect), and they are pronounced without the off-glide or diphthongization so common in English.

Navajo o is more rounded than its closest English correspondent ow (o in go), and the Navajo phoneme varies in the usage of individual speakers from a cardinal o to a cardinal u (o and u of Spanish son, and luna, moon, for example).

Navajo e and a are articulated with the tongue higher toward the roof of the mouth than otherwise when followed by i, a peculiarity which is sometimes carried over into English in the pronunciation of the compound vowel ey in hay, say, day and the ay in high, die, guy (hey, sey, dey, hay, day, gay).

Syllable final nasal consonants, such as -n, -m, -ng are often confused, by Navajos learning English, with their own nasal vowel series. This substitution will be considered in greater detail with relation to the consonants in reference.

In general, the vowel system of English does not constitute a serious pronunciational problem for Navajo beginners, because of the fairly close correspondence between the vowels and diphthongs of English and those of Navajo. The tenseness of articulation and the absence of off-glide or diphthongization in Navajo often result in audible divergence from standard pronunciation, especially when the tenseness characteristic of the articulation of Navajo phonemes is carried over into English pronunciation. The learner must mimic the teacher in the formation of English sounds, taking into account not only the proper position of speech organs, but the looseness of these organs in the articulation of the sounds of English. Compare the Navajo pronunciation of go for standard English gow (go).

The Consonants. There is considerable divergence between the consonant systems of English and Navajo, involving difference both in the articulation of basic sounds which are otherwise common to the two languages, and sounds which occur in one language, but which are absent in the other. Both types of phonological divergence pose a problem for the learner and the teacher for reasons set forth in preceding paragraphs. In view of the fact that we are primarily concerned here with the problem of teaching the English sounds to monolingual Navajo beginners, the consonants of English will be taken as the points of reference in describing their articulation by Navajo learners who carry over speech habits from their own language.

The two systems are outlined and described with reference to type and position of articulation in the following diagram:

COMPARATIVE PHONOLOGY
Consonants - Navajo-English
(Simplified)

	LABIAL		DENTAL		ALVEOLO-PALATAL		PALATO-VELAR		GLOTTAL	
	English	Navajo	English	Navajo	English	Navajo	English	Navajo	English	Navajo
1. STOPS										
a) Voiced	b	-			d	-	g	-		
b) Unvoiced										
Unaspirated	-	b			-	d	-	g		
Aspirated	p	-			t	tx	k, kw	k, kw		
Glottal					-	t'	-	k',kw'		\'/
2. AFFRICATES										
a) Voiced					j	-				
b) Unvoiced										
c) Unaspirated					-	dz,dl,j				
Aspirated					ch	ts,tł,ch				
Glottal					-	ts',tł',ch'				
3. SPIRANTS										
a) Voiced	v	-	dh	-	z,zh	z,zh	-	gh,ghw		
b) Unvoiced	f	-	th	-	s,sh	s,sh	-	x,xw	h	h
4. LATERALS										
a) Voiced					l	l				
b) Unvoiced					-	ł				
5. NASALS	m	m			n	n	ng	-		
6. INVERTED					r	-				
7. SEMIVOWELS	w	(ghw)					y	y		

The preceding tabulation of Navajo and English phonemes is highly simplified, and is designed primarily (1) to reflect such more or less close correspondences as exist between the sound systems of the two languages, and (2) to identify those speech sounds that occur in one but not in the other of the two languages. The English phonemes will be described below in terms of those substitutions and other modifications which are frequently or characteristically made by Navajo beginners. It might be well to reiterate the fact that one noticeable difference in the articulation of the speech sounds of English by Navajos, in contrast with native speakers, stems from the relative *tenseness* of the muscles used in producing the sounds by Navajo beginners as compared with the relative looseness of articulation of the same English sounds by native speakers. This feature of tense articulation is largely a carry-over from the native speech habits of the Navajo beginners.

As a generalization, another important cause for faulty substitutions by Navajos speaking English arises from the fact that there is wide divergence between the two languages with reference to those consonants which may occur in syllable or word final position. In Navajo, *any* consonant may be found as a syllable initial element, but *only eleven of them* occur in syllable final position. These are: d, g, \'/, s, sh, z, zh, n, l, ł, and h.

In contrast with Navajo, a great variety of consonants and consonantal clusters are found in final position in English. Thus, sick (sik), six (siks), sixth (siksth), sixths (siksths) etc., while not even the simple phoneme *k* is found in final position in Navajo. The Navajo beginner may make a substitution for the unaccustomed final stop with omission of one or more of the remaining phonemes.

1. *The Stopped Consonants*. This category of speech sound is produced, as the designation implies, by momentarily cutting off the flow of air at some point of articulation with the lips, tongue or other organs, while at the same time the vocal chords are drawn together in such position that they vibrate (voiced sounds), or while the glottis is open in such position that there is no vibration of the vocal chords (unvoiced sounds). If release of the unvoiced stops is followed by a little puff of breath we say they are *aspirated*; if no puff of breath follows their production they may be described as *unaspirated*, and if the glottis is momentarily closed and opened during articulation of the phoneme, it may be described as *glottal*.

The flow of air may be stopped, under varying degrees of breath pressure, by closing the lips (labial stop), by placing the tip, blade or back portion of the tongue against the upper front teeth (dental stop), against the alveolar ridge just behind the front teeth (alveolar stop) against some portion of the roof of the mouth (palatal stop) (velar stop), etc. Finally, the glottis or opening in the larynx may be closed by drawing the vocal chords tightly together (in a manner analogous to closure of the lips to produce a labial stop), subsequently releasing the closure while exerting breath pressure (glottal stop).

To distinguish the Navajo stopped consonants *b*, *d*, *g* from those of English, the Navajo sounds will be written *ƀ*, *đ*, *ǥ* in the examples given below.

a) English *b*-*p* (Navajo ƀ). In English the labial stops represented by *b* and *p* are produced by drawing the lips rather loosely together to produce a momentary stoppage of the flow of breath. In the production of English *b* the vocal chords are drawn together in vibrating position and articulation of the stop is accompanied by a humming or musical sound. For these reasons it is called a *voiced bilabial stop*.

In the production of English *p*, the flow of breath is similarly stopped by momentary closure of the lips, but the vocal chords are not drawn together in vibrating position during articulation. Rather, there is a little puff of air following release of the labial stoppage, and the resultant phoneme is therefore called an *aspirated bilabial stop*. Compare bob/pop.

The phoneme *p* varies in quality with the preceding or following vowel or consonant in many instances, but these variations do not constitute separate speech sounds of the type that distinguish meaning, so as speakers of English we ignore these variants, or *allophones* as they are called, and do not listen for or attempt to identify them. The sounds represented by *b* and *p are* distinctive, however, and we *do* listen for them to distinguish between such words as bob/pop.

Among the variants of English *p* there is one which loses its aspiration because of a preceding spirant *s*. Compare the aspirated *p* of *pot* with the deaspirated *p* of *spot*.

This variant sound is mentioned here primarily because it is a distinctive phoneme or sound in Navajo, while the distinctive phonemes *b* and *p* of English do not have parallels in Navajo. The Navajo correspondent to both English *b* and *p* is *b*, and *b* is very similar to the de-aspirated *p* of English *spot*. The Navajo bilabial stop is *neither* voiced nor aspirated; it is an *unaspirated*, *unvoiced* *bilabial* *stop*. Compare Navajo *bibid*, his stomach; '*abe*', milk; *bí*, he, she.

It is apparent then that, in this instance, a single distinctive phoneme in Navajo corresponds roughly with two distinctive phonemes of English. As a result of this divergence between the two languages with reference to the labial stops, the Navajo is not accustomed to listening for or distinguishing between the separate and distinct sounds represented by *b* and *p* in English, hearing them both as his own familiar b-sound, and substituting his own sound for both English stops, especially when the latter occur in syllable initial position. Thus, the Navajo beginner is likely to pronounce bull/pull both as *bull*; bill/pill both as *bill*, etc.

In English, *b* and *p* both occur in syllable final position, as well as in initial position; in Navajo, *b* never occurs as a syllable final. However, the glottal stop frequently occurs in syllable final position in Navajo, with the result that the Navajo beginner often mis-identifies final -*b*, -*p* of English as a glottal stop, and substitutes the latter for the labial stop. Thus *stop* may become *sto*'; bob/bop/pop > bo', etc. In view of the fact that articulation of these labial stops is visible, many Navajo beginners, mimicking their teacher, close the lips as though to produce a final bilabial stop in reproducing such English words as *bob*, but still retain a glottal closure *preceding* the labial closure. The net result is that the stoppage of air still occurs first in the glottis and there is not enough breath pressure remaining to make the bilabial stop audible. Thus *stop* often becomes sto'p, bob/bop/pop > bo'p, etc.

b) English *d-t* (Navajo đ). The English stops represented by *d* and *t* are formed by pressing the tip of the tongue against the alveolar ridge just behind the upper front teeth, to stop momentarily the flow of breath. The letter *d* represents the voiced alveolar *stop*, while *t* represents its *unvoiced*, *aspirated* correspondent.

Navajo *đ* represents an *unvoiced*, *unaspirated* *alveolar* *stop*, while the aspirated correspondent is the compound phoneme *tx* (i.e. *t* followed by a voiceless palatal spirant).

As in the instance of Navajo *ƀ*, described above, Navajo *đ* is substituted by Navajo beginners for both the *d* and the *t* of English, especially in syllable initial position. Thus, English *dish* > đish; *do*> đo; to> đo; toe/doe> đoe.

The phoneme *d* occurs in final position in Navajo, as in *ƀiƀiđ*, his stomach; *łiđ*, smoke; as well as in syllable initial position, in *đił*, blood; *đaan*, springtime. Navajo *đ* or a glottal stop may be variously substituted for syllable final *d* and *t* in English words, as in *điđ* > điđ/di', đi'đ; *slid*/*slit* > sliđ, sli', sli'đ; *what*> wha'; *fad*/*fat*> fađ, fa', fa'đ; had/hat> hađ, ha'd.

c) English g-k (Navajo g-ꝁ). The English stops represented by *g* and *k* are produced by raising the back portion of the tongue against the palatovelar area of the roof of the mouth to stop the flow of breath momentarily. The letter *g* represents the *voiced* *velar* *stop*, while *k* represents the *voiceless*, *aspirated* *velar* *stop*.

Navajo *g* bears the same relation to English *g* as Navajo *ƀ* bears to its English correspondent. That is to say, Navajo *g* is a *voiceless*, *unaspirated* *palatal* *stop*. It is comparable to the de-aspirated k-sound of English *scat* (skat), in contrast with the aspirated *k* of English *cat* (kat).

English *k* is a *voiceless*, *aspirated* *velar* *stop*, and so also is Navajo *k*. The principal difference between the two phonemes lies in the heavier, more audible aspiration of the Navajo phoneme. Compare English *kin* and Navajo *kin* (house). Both languages have a labialized variant *kw-kw* (written *qu* in traditional English orthography).

In English, *g* and *k* occur both in syllable initial and in final position; in Navajo only Navajo *g* occurs as a syllable final, and then rarely. For example, English beg/beck (bek), pig/pick (pik); Navajo *deg*, up, *'at'oig*, collar-bone. Navajo *k* occurs only as a syllable initial. E.g. *kǫ'*, fire; *kodi*, here; *kwii*, here. In both languages *kw* occurs only in syllable initial position. E.g. quit (kwit), quill (kwill); *kwe'é*, here; *kwá'ásiní*, loved ones.

Navajo beginners substitute Navajo *g* for English initial *g* in such words as *go* >*go* (or more accurately English *gow* >go), god >god; get >ge', etc. In syllable or word final position, Navajo *g* or the glottal stop, or a combination of these phonemes, are substituted for English *g*. Thus, *big pig*>big (bi', bi'g) big (bi', bi'g); *bigger* >bigger (bi'er, bi'ger).

Final -k in English is usually replaced by a glottal stop, as pick >bi' / bi'g; sick >si'/si'g; picnic> bi'gni'g.

d) Although the glottal stop \'/ does not oocur as an English phoneme, it is carried over frequently by Navajo beginners, as described above, as a substitution for the English stopped consonants, especially in syllable final position.

In addition, as pointed out previously, no Navajo word begins with a vowel. Otherwise vowel initial syllables actually begin with a glottal stop, a fact which is audible in word juncture; that is, words which are otherwise vowel initial are separated from preceding words in a Navajo sentence by a momentary closure of the glottis - a sort of hesitation, as it were, rather than blended together as they usually are in connected English speech.

Thus, in the Navajo sentence Díí 'ashkii 'ákóne' yah 'ííyáago 'azee' 'ayíííłna', when this boy went in there he took the pill, the component words are not "run together" or blended in the characteristic manner of English juncture. Each is separated from its predecessor by a glottal closure and the sequence becomes Díí/'ashkii/'ákóne'/yah/'ííyáago/'azee'/'ayíííłna'. Contrast there-z-n-apple-on-a-tree (There's an apple on a tree). Navajo beginners carry over from Navajo and substitute in English the prevocalic glottal stop of their own language to pronounce there's/'an/'apple/'on/'a tree. It is this carryover that produces the "choppiness" that so frequently characterizes connected English speech by Navajo beginners.

2. The Affricates. The affricates are compound phonemes, composed of a *stop* plus a *spirant* or other continuant. In English, *j*, composed of *dzh* (zh = the *s* of pleasure) and ch, composed of *tsh*, occur as affricates.

a) j (= dzh) - (Navajo j = dzh). The English affricate *j* is composed of *voiced* English *d* in combination with the voiced spirant *zh*, and it is articulated loosely, as in judge (dzhudzh), gin (dzhin), etc.

In Navajo, the phoneme begins with a variant of Navajo đ followed by a variant of the voiced Navajo spirant zh.

b) ch(=tsh)-(Navajo ch = tsh). The English affricate ch, and the corresponding Navajo phoneme are composed of the voiceless stop t in combination with the voiceless spirant sh. However, the Navajo phoneme is produced with greater tenseness than in English, and is more heavily aspirated. Compare Navajo jį́ (dzhį́), day/chin (tshin), filth.

Although j and ch occur in syllable final position in English, neither of them occur as syllable finals in Navajo, but only as syllable initials. The relatively light aspiration that characterizes English ch in contrast with Navajo ch, and the distinction between Navajo j (đzh) and English j (dzh), lead to faulty substitution of Navajo đzh for both of the English phonemes by Navajo beginners. Thus, judge (dzhudzh) > đzhuđzh; jill/chill (đzhill/tshill) > đzhill; ridge/rich (ridzh/ritsh) > riđzh.

When ch and j occur intervocalically in English words, the dzh is often preceded by a glottal closure in the pronunciation of Navajo beginners. Thus bridges/britches > ƀri'đzhes.

Further, and as might be expected, the Navajo affricate đz is substituted for the cluster dz in English adze > ađz; pads (padz) > ƀađz; and for English ts in pats > ƀađz; hits > hiđz. The cluster gl, as a word initial, is often misheard by Navajo beginners, who may substitute the đl of Navajo. Thus English glow > đlo.

3. The Spirants. This class of speech sounds is produced by constricting the passage through which air is forced out under pressure from the lungs, to produce various types of "whistling, hissing, buzzing, etc." sounds. Constriction may take the form of bringing the lips almost together but without tight or complete closure (the bilabial b of Spanish, for example); or it may be produced by placing the lower lip against the upper front teeth (English f, for example); by placing the tongue against the upper front teeth (English th); by placing the front part of the tongue against the alveolar ridge or the anterior part of the palate (English s, z, sh, zh, etc.); by raising the back part of the tongue against the posterior part of the hard palate, the velum or uvula (as the ch of German ich, I, the x of Navajo xai, winter, etc.); by constricting the glottis (English h) etc. These sounds may be accompanied by vibration of the vocal chords (voiced) or articulated without such vibration (unvoiced). Thus, although articulated by the tongue in exactly the same position, z is voiced and s is unvoiced in English bus/buzz.

The spirants (s, sh, z, zh), articulated in both languages in alveolo-palatal position, occasion no difficulty since, except for the feature of relative tenseness in their production in Navajo, they correspond closely. Similarly, the glottal spirant h occasions no difficulty to Navajo beginners.

However, as reflected in the comparative chart, the labial and dental spirants of English have no correspondents in Navajo. The phonemes v and f are produced in a visible position and are thus learned with relative ease. The voiced and unvoiced spirants written as th in conventional English orthography (identified as dh for the voiced and th for the voiceless phoneme in the chart), are produced by placing the tip of the tongue against the lower extremity of the upper front teeth. Thus the manner of production is less readily visible *unless the teacher makes an effort to demonstrate it*.

Navajo beginners usually substitute Navajo *d* for the *dh* and *th* of English. Thus mother (modher) > mudder; father (fadher) > fadder; bath > bad; thin > din or sin, etc.

4. *The Nasals*. The nasals *m, n, ng* in English are formed by cutting off the flow of air and forcing it out through the nose. If the occlusion or stoppage is produced by closing the lips, the resultant sound in English is that written as *m*; if stoppage is produced by raising the tip of the tongue to the alveolar ridge, English *n* is produced; and if the back portion of the tongue is raised against the velum, *ng* is produced.

Navajo *m* and *n* are similar to their corresponding English phonemes, except that *m* can occur only in syllable initial position in Navajo. When *m* occurs as a word final sound in English, Navajo beginners often mishear it as a nasalized vowel, although they observe the closure of the lips in production of the phoneme by English speaking people. Usually, the Navajo beginner closes the lips in an *m*- position, nasalizes the preceding vowel and fails to release the lips from the final *m* position during articulation. Thus, English Sam > Sąm̧ (m̧ representing unreleased *m*); Rome > Rǫm̧, etc.

The English phoneme *ng* is articulated in a tongue position very similar to that of English *g* and *k*. The back portion of the tongue against the velum cuts off the flow of air through the mouth, and the velum is not raised sufficiently to cut off the nasal exit with the result that all or part of the sound produced by the vibrating vocal chords goes out through the nose. To some extent it may be possible to demonstrate visually the articulation of ng, but the position in which it is articulated is a limiting factor.

The phoneme ng never occurs as a syllable initial in English, and it does not occur at all in Navajo. Navajo beginners may variously identify this sound with Navajo final -n or with vowel nasalization, substituting now one and nowthe other. Thus sing/seen may both be heard as sįį, sįįn.

5. The Laterals. The only lateral occurring in English is the voiced phoneme represented by l. This sound is produced, in word initial and intervocalic position, by touching the tip of the tongue against the alveolar ridge just behind the upper front teeth, as in lip, yellow. Similarly, as a syllabic in little, kettle; but as a word final, and when it occurs before certain other consonants, l is often produced by depressing the mid-portion of the tongue with or without touching the tip of this organ against the alveolar ridge. Compare l in English let; in contrast with l in well; Wilbur.

The phoneme, as it occurs in Navajo, is very similar to the l of let in English, except that such non-distinctive variants as the l of well, Wilbur, do not occur. Thus, Navajo laanaa, would that; yilbąs, it is being rollled along; siil, steam. In each instance the l is produced by contact between the tip of the tongue and the alveolar ridge, and it is fully and rather tensely articulated. In such sequences as Navajo yilghwoł (yilwoł), he is running along, English speaking persons interpret the juncture of *l* and *ghw* as one involving an intermediate vowel, and often substitute *yilaghwoł*. The Navajo reproduces the phoneme *l* in all English words in the same manner irrespective of its position, with the result that the native speaker of English detects an unusual quality in this sound as reproduced in such words as *well*, *wellbeing*, *bull*, etc.

6. *Inverted*. This phoneme, represented by *r* in such English words as *rang*, *ran*, *car*, *carburetor*, etc. is produced (in Midwestern English) very much after the fashion of a lateral. The tip of the tongue may be raised toward the alveolar ridge, but no contact is made. Compare wall/war; will/weir; wool/were; red/led; rim/limb.

Navajo beginners frequently substitute *w* or *l* for English *r*, or omit it, as for example *wed* for *red*, *bwought* for *brought*, *cabulato* for *carburetor*.

7. *The Semivowels*. Generally, the labial *w* and the palatal *y* are similar in the two languages except that the back portion of the tongue is raised higher in producing the Navajo sound, resulting in the production of a weak spirant *gh* preceding formation of the labial and palatal in reference. Compare English *yell*/Navajo *yinishghé*, I am named.

For obvious reasons, a detailed description of the reproduction of English phonemes by Navajo beginners would require a much more detailed study of the variants of those phonemes as they occur in initial, medial or final position; as they occur in conjunction with the several vowels; as they occur as components of consonantal clusters, etc. It is doubtful that such a description would be of value even if it could be made in general terms to apply to a majority of Navajo beginners. The present description sets forth the basic differences between the phonology of English and that of Navajo, and points out the more common types of substitution made by Navajo children. It is hoped that study of this problem by the teacher in Navajo schools will lead to better understanding of some of the reasons underlying faulty pronunciation by the children, and that the teacher will devise methods through which to overcome these difficulties. Such methods might include visual demonstration of the manner in which certain sounds are articulated (*f* and *v*, for example); it might involve contrasts between such phonemes as *ch* and *j*, *d* and *t*, in order to draw the pupil's attention to the fact that there *is* a difference between such phonemes and that the difference in quality of these sounds serves to distinguish meaning. *Bed* and *bet*; *ridge* and *rich*, etc. are separate and distinct words, and the semantic distinction lies in the final consonant. To be sure, an effort should be made to correct misidentification and resultant faulty reproduction of English phonemes before erroneous substitute forms become fixed speech habits difficult or impossible to break. Failure to identify and mimic the simple phonemes accurately compounds the difficulty involved in learning to reproduce consonantal clusters. Pronunciation of *bathroom* is difficult, and especially so if the pupil cannot reproduce the phonemes *th* and *r*. If he cannot say *six*, it will be proportionately harder to attempt *sixth* or *sixths*.

WORD FORMATION

The English language customarily uses a variety of unrelated verbs to describe actions and events which, to the Navajo speaking person, are all aspects of the same basic meaning. In Navajo, different sets of derivational prefixes may be used in conjunction with a common verbal stem to produce a wide variety of meanings.

Thus, the verbal stem -'ą (perfective mode form) refers basically to the handling of a single roundish or bulky object. The many ways in which the action can take place, including extensions of the basic meaning of the verb, render a large variety of forms all sharing the same verb stem in Navajo, but often expressed by unrelated verbs in English. Thus:

ha'díí'ą, I started to sing
bighanisht'ą́, I took it away from him
ch'íní'ą́, I carried it out
si'ą́, it is (in position)
ńdii'ą́, I picked it up
'ałnání'ą́, I transposed their position
ní'ą́, I brought it
dah sé'ą́, I set it up (e.g. on a shelf)
łeeh yí'ą́, I buried it
náhidéé'ą́, I turned it over
niní'ą́, I set it down
shąąh dah hàz'ą́, I got sick
baaní'ą́, I gave it to him
n'dii'ą́, I took it down
ba'ní'ą́, I loaned it to him
ha'íí'ą́, the sun came up
séł'ą́, I keep it
'ałníní'ą́, it is noon
'ałts'ání'ą́, I divided, shared, it
bik'ihodii'ą́, I accused him
hidii'ą́, I hung it up

bits'ádiní'ą́, I prohibited him
yisdáá'ą́, I saved it
'i'íí'ą́, the sun set

Similarly, with the variant stems -*yá*, *dzá* (perfective mode) meaning *go* (with reference to one person):

ch'íníyá, I went out
bik'íníyá, I found it, came upon it
yisháá, I'm walking along
bits'ánánísdzá, I divorced her
bąąh haséyá, I climbed it
bíiyá, I joined it
ch'ééh déyá, I am tired
hadááyá, I dismounted
ńdiisdzá, I got up, arose
niséyá, I made a round trip
dah diiyá, I started off
baa niséyá, I did it
tádííyá, I wandered about
bich'ą́ą́h niníyá, I protected him
níyá, I arrived, went
nánísdzá, I returned

Sometimes, there are several choices in Navajo to translate a single verb in English. This is especially true with regard to those Navajo stems that classify the object classes to which they refer. Thus, there is no single translation for the English verb *give*, but a number of possible translations, depending on the characteristics or number of the objects concerned.

naaltsoos shaa níł*tsóós*, give me the sheet of paper (single, flat, flexible object)
naaltsoos shaa ní'*aah*, give me the book (single bulky, roundish object class)
'awéé' shaa nííteeh, give me the baby (single animate object class)

'awéé' shaa níníłł, give me the babies (plural, separable objects)
nát'oh shaa nítiih, give me a cigaret (single slender stiff object)
tł'óół shaa nílé, give me the rope (single, slender flexible object)
'aghaa' shaa níłjooł, give me the wool (non-compact matter)
hashtł'ish shaa nítłeeh, give me the mud (mushy matter)

GRAMMATICAL FEATURES

1. *Number*. Navajo does not generally distinguish grammatical number in its nouns (see the section of the grammatical sketch relating to noun formation). As a result of the habit of considering nouns to be singular or plural as required by the verb or by the context, Navajo beginners customarily fail to add the pluralizing suffix -s, -es, to English nouns. "The dog barked", or "the dog they barked" may replace "the dogs barked". In Navajo, "dog/dogs" are both rendered by łeechaa'i; the verb form indicates one or more than two. Thus łeechaa'i naxał'in, the dog(s) (singular or dual number) bark (s); łeechaa'i ndaxał'in, the dogs (more than two) bark.

2. *Possession*. Possession is expressed in Navajo by the prefixed possessive pronouns. Thus ch'ah, hat; brich'ah, his hat. Noun possession is expressed on the pattern "Boy his-hat" ('ashkii bich'ah) instead of the pattern "the boy's hat." Equation of the Navajo "noun + possessive prefix + possessed noun" pattern with the possessive suffix -'s, -s' is very difficult for Navajo beginners.

3. Adjectives. As a word class, there are few adjectives in Navajo. Rather, neuter and other verbal forms function in a corresponding capacity, often with a suffix tantamount in meaning to "the, the one". Thus nizhóní, he (she) is pretty, 'at'ééd nizhóní léi' yiiłtsą́, I saw a pretty girl (lit. girl she-is-pretty (some) one I-saw-her.) The neuter verb "to be pretty" is conjugated for person like other verbs of its class. Thus nishzhóní, I am pretty; nízhóní, you are pretty, etc.

4. Gender. In its third person pronominal forms English continues to distinguish between masculine (he, his, him), feminine (she, hers, her), and neuter (it, its, it). Navajo makes no comparable distinction. As a result, Navajo beginners frequently confuse the English pronominal gender forms, or use them indiscriminately.

5. Subject-Object. Navajo verbs incorporate pronouns representing the pronoun subject, and the pronoun object of the verbal action (in the case of transitive verbs). Thus, the form bíhoosh'aah, I learn it, incorporates the pronoun subject -sh-, I, and the object bí-, it. "I learn Navajo" becomes "Diné bizaad bíhoosh'aah," "I-learn-it Navajo language". Navajo beginners frequently include the pronoun even when the noun itself is mentioned, saying "the dog he barks", "I'm learning it English", etc.

6. Prepositions versus Postpositions. The forms corresponding to the prepositions in English are postpositions in Navajo, following rather than preceding the word they modify. Thus "toward the mountain" becomes dził bich'į' (mountain it - toward), "to the mountain" dziłjį' (-jį', as far as); "to-me", shaa (as shaa ní'aah, give it to me - (sh-, me; -aa, to).

7. Sentence Pitch (7) The sentences that compose connected speech are not generally uttered as a mere sequence of words, but are marked by various types of modulation, including sentence pitch and stress, which serve to modify meaning in one manner or another. Different languages utilize this mechanism in different manners and for different purposes. In English, pitch and stress perform a wide variety of functions, serving to indicate, for example, that a sentence is in the form of a question or an exclamation, or that emphasis attaches to one or more of the component words. Likewise, certain characteristic modulations of the voice may connote the attitude of the speaker, including the expression of such sentiments as anger, disgust, fear, pleasure, anxiety, surprise, wonderment, disbelief, consternation, etc.

English utilizes pitch in a wide variety of situations; other languages may utilize this mechanism to a lesser extent, and some use separate words to connote modifications in meaning that are generally conveyed in English by voice modulation, stress or sentence pitch.

Compare English (8) : You are surprised (a declarative statement, uttered at a steady tone level) and You are surprised? (a question, indicated by raising the pitch of the voice in uttering the last word) or You are surprised! (an exclamation, indicated by stress and falling pitch on the last word).

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(7) See An Outline of English Structure, by George L. Trager and Henry Lee Smith, Jr. Studies in Linguistics: Occasional Papers No. 3, Norman, Oklahoma, 1951. See also Language by Leonard Bloomfield, Henry Holt and Company, 1933.

(8) The lines placed above words in the English sentences to follow indicate voice pitch.

It was pointed out in the discussion of Navajo phonology that, unlike English, Navajo utilizes fixed or inherent tone with relation to vowels and syllabic *n* as a mechanism through which to distinguish meaning. Thus *ní*lį́, you are /*ni*lį́, he is; ha*díí*dzih, you will speak/ ha*dii*dzih, we will speak; ná'*óó*dzííł laanaa /would that you might warm up/ ná'*oo*dzííł laanaa, would that he might warm up; 'ák'idí*níil*kał, you will drive them (attackers) off of yourself /'ák'idí*niil*kał, we will drive them (attackers) off of ourselves.

The use of a rising sentence inflection to indicate interrogation, or the use of other types of pitch attaching to words or syllables to convey the connotation of surprise, emphasis, etc., is either not possible in a "tone language", is not used as a mechanism for this purpose, or is used in a different manner and to a different extent.

In fact, Navajo utilizes the interrogative particles *da*' -*ísh*, and -*shą*' to indicate a question, as in the example: Díí 'ashkii John gholghé, (declarative) This boy's name is John /*Da*' díí*sh* 'ashkii John gholghé? (interrogatory) Is this boy's name John? English denotes the fact that the second sentence is interrogative by rising voice inflection; Navajo indicates this fact by the interrogative particles *da*' and -*sh*, and sentence pitch does not enter as a mechanism for thus modifying the meaning of the sentence.

Similarly, compare the following use, in Navajo, of special words to convey meanings or modifications of meaning which are generally expressed by modulation, stress or sentence pitch in English with or without special words:

Gah'as = a ra-abbit! (an exclamation connoting scornful disbelief when the listener expected larger game than a paltry rabbit.)

Háadidashą' 'ásht'į́ = where am I? (connoting wonderment as well as a question - also, I wonder where I am?)

Dooládó' nilį́į́' neesk'ah da lá, you have a nice fat horse (an exclamation or a statement connoting pleased surprise).

Na'nízhoozhígóó dó' díníyáásh łí, do you happen to be going to Gallup? (Connotes not only a question, but a hopeful or wondering attitude on the part of the speaker). Similarly, ndaaz dó'ísh łí, Could it be heavy? or Could it be heavy?

Dííga' chidí nizhóní, this (one) is the prettiest car! (not the other one - connotes emphasis). Similarly, ndaga', No-o-o! (emphatically no).

Haalá t'áá 'éiyá yinílghée ni', what was your name? (a level high pitch connoting the fact that the person's name, although known to the speaker, cannot be recalled momentarily).

Doo hanii kingóó díníyáa da nisin, I thought you weren't going to town (but I see that you are - connotes contrariness to fact).

Díí tsé 'át'éé lá, this is a ro-o-ck! (an emphatic exclamation, connoting the fact that the speaker had mistakenly identified it as something else and discovered it to be indeed a rock).

Hastiin Nééz lą́ą hádadíníit'į́į', we are looking for Mr. Nez! (not for someone else - or yes, it's Mr. Nez that we're looking for. An emphatic construction).

Ch'éeh la' ńdiish'aah, I cannot lift it! (I don't know why, but I simply cannot lift it - connotes chagrin and consternation at one's inability to act).

'Azhą́ hadoh bik'ee ti'hwiisénii' ndi 'ákǫ́ǫ́ náádeeshdááł, even though I suffered from the heat, I'll go there again, but 'azhánee' hadoh bik'ee ti'hwiisénii' ndi náádeeshdááł, even though I suffered from the heat I'll go there again! (The first sentence is a simple declarative statement; the second connotes resignation, displeasure or an unfortunate circumstance attaching to what must be done nonetheless.)

Díí lá tsé 'át'é ni, this is a ro-o-ck! (emphatic - it's a rock, not something else). Similarly kingóó lá déyá ni, I'm going to town! (emphatic - as in answer to the question "where do you think you're going?")

Díí ké t'óó la' 'áłts'íísí nahalin, this shoe looks too small (but its appearance may be deceiving - contrary to fact).

'Áłts'íísí yee', he's sure little! (exclamatory and emphatic). Similary, 'eii yee' shi, that's mi-i-ne! (as when someone pockets one's property - Hey! That's mine!).

The examples given above are by no means exhaustive, but will serve to illustrate a few of the situations in which Navajo utilizes special words or combinations of words to connote modifications of sentence meaning of types connoted in English by sentence pitch, modulation or stress. Why do Navajo beginners (and even advanced students) read or speak English without the modulations and inflections that characterize the speech of native speakers? The answer lies in the fact that Navajos are unaccustomed to the use of sentence pitch in all of the situations and for all of the purposes for which this mechanism is used in English, and are often unable to determine the meaning and shades of meaning associated with sentence pitch in the new language when they hear it. This mechanism, as a type of secondary phoneme characterizing the English language, can be every bit as baffling to the Navajo learner as the tones, vowel lengths and particles of Navajo can be to the English speaking learner of that language.

Agent-Actor Identification. English makes frequent use of the personal pronouns to represent *self* as the agent with reference to verbal actions of a type in which the person affected may not indeed, from the Navajo point of view, be the agent. Thus, if a dish falls accidentally from one's grasp, English may still use "*I* dropped the dish" instead of "*the dish* fell out of my hand". Similarly, we say "I flew" when we mean that "an airplane 'flew' me". "I sailed" when the primary actor was the ship; "I galloped", when the horse I rode was the primary actor, etc.

Navajo distinguishes the actor from the person affected by the action in instances of this type, although the actor may be expressed as the agent. For example:

nát'oh náákę́ę́z, the cigaret fell (the cigaret is the actor).

nát'oh náátt'e', I dropped the cigaret (intentionally) (I am the agent who causes the cigaret to fall).

nát'oh sits'ą́ą́' náákę́ę́z, my cigaret fell (the cigaret fell away from me); I dropped my cigaret (unintentionally) (the cigaret is the actor).

nát'oh shílák'ee háákę́ę́z, the cigaret fell out of my grasp; I dropped my cigaret (unintentionally) (the cigaret is the actor).

shich'ah naalts'id, my hat fell.
shich'ah nááłne', I dropped my hat(intentionally).

shich'ah sits'ą́ą́' naalts'id, my hat fell (away from me); I dropped my hat (unintentionally).

shich'ah shílák'ee haalts'id, my hat fell out of my grasp; I dropped my hat (unintentionally).

Similarly, with reference to such actions as travel by boat, train, horse, airplane, wagon, automobile, etc., the primary actor may be expressed as the causative agent of the verbal action. In fact, a third actor may be expressed as the causative agent. Thus:

shił 'oo'oł, I am sailing along (it is floating along with me). (The subject, although translated here as it, is indefinite since the definite implied actor boat is not mentioned) - (literally, "something is floating along with me").

shił 'ool'oł, I am sailing along; I am being taken by boat (it is being caused to float along with me (literally "someone is causing something to float along with me).

'eesh'oł, I am sailing along (literally, "I am causing something to float along". In this example, the person represented by the subject pronoun is the causative agent of the action).

If the primary actor is another *animate* object, such as a horse, instead of an *inanimate* airplane, boat, etc., the person carried may not be expressed as the (causative) agent with reference to the action, because the horse has a will of his own and, from the Navajo viewpoint, is not directly subject to the will of the secondary actor (the rider) in the same manner as the *inanimate* airplane or boat which may be caused to move at will by an agent. The English speaking person is culturally conditioned to accept coercion or a causative relationship between man and other *animate* objects, including humans. The Navajo is not so conditioned, and linguistic forms expressing coercion or causative relationships between an agentive subject and an animate object are by no means as commonly used in Navajo as they are in English. Thus:

łį́į́' shił neeltą́ą́', I galloped; I arrived at a gallop (i.e. *the horse* arrived at a gallop with me); or shił 'aneeltą́ą́', I galloped; I arrived at a gallop (i.e. *something* arrived at a gallop with me). But there is no form, with reference to an *animate* object, paralleling tsinaa'eeł níł'éél, I *caused* the boat to arrived floating, to render I *made* or *caused* the horse to gallop.

The expression "he made me do it", "I made him ________", etc. indicating a person's causative function with relation to a verbal action performed by a second or third party, irrespective of that party's will or desire, - and the large English vocabulary relating to coercion (e.g. make, compel, force, coerce, oblige, require, constrain, etc.) - are so commonplace that it may not occur to us that members of other cultural groups, speaking other languages, may not totally share these concepts with us, and may find it clumsy to verbalize them. In fact, in some contexts the connotation of coercion or causation may have to be expressed by circumlocutions rather than by forms which are considered to be the normal ones in expressing causation within acceptable contexts.

In this regard, and by way of illustration, compare the following translations into Navajo of English sentences wherein the subject is the agent, causing an action to be performed by a second or third person irrespective of the latter's will or desire in the matter:

'awéé' nabiishłá, I make the baby walk; I walk the baby (cf. 'awéé' naaghá, the baby is walking). The verb form nabiishłá is a causative form in contrast with naaghá, and it is logical from the Navajo viewpoint to cause this action with reference to babies, drunk persons, etc., but the form implies actual contact rather than a verbal order. The force is manual.

she'esdzáán tódiłhił bi'iyííłdlą́ą́', I am the cause of my wife drinking the whiskey (because I made it available or gave it to her to drink). (cf. she'esdzáán tódiłhił yoodlą́ą́', my wife drank the whiskey). To clearly express the concept "I *made* my wife drink the whiskey" (by threat, command or application of physical force), there must be added the phrase "'azhą́ doo 'íínízin da ndi", even though she did not want to do so.

łį́į́' binéłdá, I made the horse sit down; I sat the horse down (cf. łį́į́' neezdá, the horse sat down). The form *binéłdá* is causative in contrast with *neezdá* and, like *nabiishłá*, implies force manually applied and not necessarily an imposition of my will upon the horse.

łį́į́' shá yilghoł, I make the horse run, means literally, the horse is running *for me* (but the action is not expressed as one in which I am the causative agent - it is still a voluntary action on the part of the horse). Of course, one can say *łį́į́'* neeshchééł, I am chasing the horse, which is tantamount to making it run. (Cf. she'esdzáán shá 'i'niiltsąąd, I made my wife pregnant (literally, my wife became pregnant *for me*.)

Contrast with these examples the following translations of English terms involving causation:

I *made* my wife sing, she'esdzáán doo 'íínízinda ndi hótaał bidishníigo hóótáál (literally "even though my wife did not want to do so, she sang when I told her to sing").

I *made* him look at it, 'azhą́ doo 'íínízin da ndi yiníł'į́, bidishníigo yinééł'į́į́' (literally, "even though he did not want to do so, he looked at it when I told him to look at it").

I compelled (made) my children go to school, sha'áłchíní 'ólta' bíníshkad (literally, "I drove my children to school"), or sha'áłchíní 'ólta'jį' ninínil (literally, "I placed my children in school").

Causative verb forms constructed on the pattern of binéłdá, I made him sit; binéłtį́, I made him lie down; bi'iyííłdlą́ą́', I made him drink, I fed him a liquid, etc., would be illogical from the Navajo viewpoint and various circumlocutions must be used with reference to other situations in which the subject of the verb is the agent causing action to be performed by another person or animate object. One does not make the horse run, trot, or gallop, because the horse has a will of its own. He may trot against his will, at the direction of a person, but the action in so doing is not expressed as one which was directly caused by the subject of the verb in his capacity as a causative agent. The horse trots "even though he didn't want to do so", but he still had the freedom of choice to decline or refuse to trot!

The foregoing pages have defined and illustrated a few of the problems which confront Navajo schoolchildren in their efforts to master spoken English, including those associated with habits of speech and expression acquired in connection with their own Navajo language, and some of those which are related to Navajo culture generally. They are real problems for the learner, and as such they merit special attention and understanding on the part of the teacher. In learning the English language, the Navajo beginner must master not only the phonology, vocabulary and structure of a new and different speech system, but he must readjust some of the ways in which, as a member of Navajo culture, he has become accustomed to viewing, framing and expressing ideas.

NAVAJO RELIGION

It is not an easy task to describe Navajo religious beliefs and practices objectively and in a form that will be readily understandable to those readers whose background and perspective are largely confined to the familiar religious systems of Europe and Asia. In fact, the very word **religion** is often popularly restricted in its application only to our own or to generally similar systems of practice and belief, and often is not extended to include any and all systems whereby man attempts to deal with the supernatural.

Some observers of Navajo ceremonies, and some who read accounts of Navajo religion tend to interpret it as a system or evaluate it qualitatively by weighing it against what is familiar and what is therefore taken as **religion** in an absolute sense. In so doing monotheism—the recognition and worship of one Supreme Being—is a cardinal criterion. Other criteria include the principle of personal immortality, the sharp dichotomization of good and evil, the inclusion of a code of morals and ethical behavior based on divine mandate, the use of temples, churches or other places for regular worship and services, and a formal, well organized doctrine and system of practices and beliefs. If all or a major part of those elements are absent or loosely defined in a religious system, it is not uncommonly placed outside the strict scope of meaning of the term **religion,** and viewed as a simple pagan practice, based upon "superstition."

In the sketch that follows, Navajo practices and beliefs, although not meeting popular criteria, are treated as constituting a religious system.

Over the course of the past 75 years a number of highly capable social scientists have studied the religion of the Navajos, and from these inquiries there has grown up a large body of literature, both descriptive and interpretive in nature, which has given us a degree of insight into the spiritual side of Navajo culture that earlier observers lacked.[1]

Prior to the studies carried out by Dr. Washington Matthews, an army physician stationed at Fort Wingate in the 1880's, little was known about Navajo religious practices and beliefs. The extent of this ignorance in the mid-nineteenth century is amply reflected in the writings of Dr. Jonathon Letterman, Post Surgeon at Fort Defiance in the 1850's, whose "Sketch of the Navajo Tribe of Indians, Territory of New Mexico," was published in Miscellaneous Documents No. 113 of the Annual Report of the Board of Regents of the Smithsonian Institution in 1855, wherein Dr. Letterman states that "Of their religion little or nothing is known as, indeed, all inquiries tend to show they have none; and even have not, we are informed, any word to express the idea of Supreme Being. We have not been able to learn that any perseverances of a religious character exist among them; and the general impression of those who have had means of knowing them is that, in this respect, they are steeped in the deepest degradation.*** It is impossible to learn anything from the people themselves, as they have no traditions. A volume of no mean size might be written, were all the stories of interpreters taken for truth; but it would be found a mass of contradictions, and of no value whatever."

The superficial observations and inquiries of Dr. Letterman failed to reveal the fact that religious rites and practices were an essential element

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(1) Notable among scientists who have studied and written about Navajo religion are Dr. Washington Matthews, The Franciscan Fathers of St. Michaels, Ariz (esp. Fr. Berard Haile), Clyde Kluckhohn, W. W. Hill, Gladys A. Reichard, Leland C. Wyman, Dorothea Leighton, Franc J. Newcomb, Mary C. Wheelwright, and David F. Aberle (Peyotism).

in nearly every aspect of traditional Navajo culture, pervading it to such a degree that, paradoxical as it may seem on the basis of the writer's criteria, there was apparently no **religion** at all. It remained for Washington Matthews a few years later to delve into the complex labyrinth of Navajo ceremonial, practice and belief to lay the foundation for the work that followed. Scientifically objective and unprejudiced in his approach, Dr. Matthews gained an understanding of the Navajo that was shared by few European-Americans of his time.

Although for the purpose of the Navajo Yearbook we shall describe and interpret Navajo religion primarily as an element of Navajo culture, we shall, at the same time, attempt to develop perspective and better understanding, especially in the matter of what constitutes "superstition" or "primitiveness," by freely calling attention to analogous practices and beliefs which, historically, we share with the Navajo. Likewise, since many who read this section may not be students of anthropology or comparative religion, we will touch upon elements herein that are not properly aspects of Navajo religion but which form part of the body of practices and beliefs which are associated with religion from the European and Asiatic viewpoint.

I. Navajo Cosmology and Cosmogony.

The origin myth of the Navajo traces the evolution of life through four (some say eleven) underworlds to emerge on the fifth and present world where it developed its actual form. The five worlds seem to have existed from the beginning consisting of superimposed hemispheres supported by the **yayiyahniiziinii** or dieties who "stand under the sky to support it." Above the fifth world some say there are one or two additional worlds, one the abode of spirits and the other a void where all things blend into one with the cosmos.

The Navajo concept is not unlike the Judaic and early Christian concept which described the earth as a land area floating like an island in an immense ocean overspread by the solid dome of the heavens which fit like a great lid with its edges on the horizon, resting on supports placed in the water. The sun entered the terrestrial hemisphere in the morning and departed at night through doors in the east and west. Above the heavens was another ocean similarly domed and supported overhead. The sun, moon and planets were hung from the interior surface of the celestial dome and were moved by angels who also opened windows to let the water from above fall as rain on the earth below. After acceptance of the geocentric Ptolemaic theory of the universe in the second century A. D., we developed the concept of the earth as a ball located in the center of ten superimposed spheres, each carrying one or more of the heavenly bodies, and each turned by angels. Even the void beyond the tenth sphere—the Empyraeum—is remindful of the Navajo concept of the great void beyond the sky world. And we might add that, for 1400 years, until the times of Galileo we maintained a concept of the universe not unlike that described by Dante.

According to Navajo legend, in the first, or Black world, there were four clouds, of which one embodied the essence or prototype of female and another the essence or prototype of male. Where two of these clouds met, at a point in the east, First Man was formed, and with him an ear of white corn which became the perfect prototype of all subsequent ears of white corn.

On the opposite side of the first world the two remaining clouds joined to produce First Woman along with an ear of yellow corn, the perfect prototype of all subsequent ears of yellow corn. Thus First Man stood at the East and First Woman at the West in the first world.

Atse Hastiin and Atse Asdzan, or First Man and First Woman, were perhaps the perfect prototypes serving as models for man, in whose creation they were predestined to be instrumental, but they were not themselves men or human beings. Mankind did not emerge as such in the underworld, but only his mould or prototype, and the will that he would come to be. His development and the development of all other elements, animate and inanimate, of the Fifth World were predestined and planned from the beginning and each of the events of the underworlds was but an evolutionary step toward the realization of man and his present world.

First Man and First Woman became aware of each other's existence and he went to live together with her.

Also in the first world there were Coyote Beings, one of whom possessed knowledge of what lay beneath the water and above the sky, with whom First Man and First Woman laid plans for the future. There were many other animate forms identified as ants, spiders, bats, etc. They too were perhaps prototypical forms of what were predestined to become those creatures ultimately.

The first world became crowded and the prototypical Beings moved upward into the second world led by First Man, First Woman and the two Coyote Beings. They found the Second World already peopled with various Bird Beings with whom they fought, and later they progressed upward into the Third World.

In the Third World there were prototypical Male and Female rivers, the former flowing into the latter and symbolizing generation. There were, too, prototypes of what were predestined to be the Sacred Mountains of the Navajo world. In the Third World there were various Holy People and other animate Beings, or their prototypical forms. Here the seeds of agricultural crops were magically created. There was still no sun, no moon or stars, and night and day were differentiated only by a black and a white cloud which alternately rose to blanket the world. Asdza Nadleeh, The Changing Woman, or her prototype, was present in the Third World, and as one of her manifestations she represents fertility and life—its regeneration and recession with the seasons as vegetation greens and dies to become green again.

Many adventures took place in the Third World, including the temporary and disastrous separation of the sexes which led to the birth of monsters. In the the course of reunion of the sexes, Coyote stole the children of the Water Monster who in turn produced a great flood that drove the prototypical Beings upward into the Fourth World.

The Fourth World was not satisfactory so First Man led the Beings again upward to the Fifth and present world where again were found preexistent Beings. From these, by magic, the Fifth World was won. The prototypes of mountains, rivers and other inanimate objects as well as those of animate Beings were brought up from the underworld by First Man, and here they took their final form as mountains, rivers, wolves, badgers, pumas, etc.

A fragmentary account of the escape from the flood, and the Emergence, as told by a Navajo Medicine Man, is reproduced herewith.[2]

"I am a medicine man. I am going to tell the story I got long ago from a man called Man With a Moustache, who was my grandfather. It was twenty-seven years ago that he died of old age, at the age of a hundred and two years. I shall now begin to tell you his story, the one which he himself told to me.

It is said that, long ago in the Underworld, there existed the mountains known as Sierra Blanca Peak, Mount Taylor, San Francisco Peak, La Plata, Huerfano and Gobernador Knob. And people were in existence, living there. It was then that Coyote did something. Somewhere a river was flowing, it is said. The offspring of Grabs Things in Deep Water (a Water Monster) was floating about when Coyote approached it and tried to get it. He lassoed it with a sunbeam and pulled it ashore. For that reason things began to go badly for The People. All the birds that fly flocked together for no apparent reason. Something black kept rising up and receding. Cold came from the south, the west and the north, it is said. The People wondered what it was. They looked, and found it to be water.

It was then that First Man and First Woman picked up Sierra Blanca Peak. They picked up Mount Taylor, San Francisco Peak, La Plata Mountain, Huerfano, and Gobernador Knob. They gathered up all the seeds of plants. In a certain place there was a mountain, and all the creatures climbed to its summit. Then the mountain began to absorb the water and dissolve itself into mud with them on it. At this point they became desperate, and planted a tree to ascend by—a fir tree, they say—but it only grew to the present height of such trees. They were in desperation, and while they were in the treetop two people (men) of some kind arrived there nearby.

"Who can they be, Some one go and tell them what the situation is," someone said.

At that point they were informed and they came over. "Could it be that you might do something?" they were asked.

"That's the way to talk," they said, and room was made for them. One of them started off to one side (out of sight), and his companion was asked, "Who is that?"

"He is my maternal uncle. He is the Sun," he replied.

As soon as he felt sure that they had named him, he came back in. When that one came back in, the other one started away. Then this one was asked, "Who is that?"

"He is the Moon. He is my maternal uncle," he said.

That is why The People do not speak each others' names in each others' presence. Here is where the precedent was established.

"This is about the only way," he said, as he stuck his big reed flute into the ground.

His companion had a pinetree flute. Before long there appeared a white speck where the flute extended against the sky. Then they got into it, got into it, got into it. The Turkey was last. His tail stuck into the foam, so the white tip is the foam, they say.

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(2) From "Selections from Navajo History," Young and Morgan, published 1954 by the Bureau of Indian Affairs—pp. 11-13.

The People climbed up to one of the sky-ledges, and there all those who could dig tried in vain.

It's next to impossible, my grandchildren. There are layers of rock," said Gopher. (That is why he doesn't dig straight down; instead he merely digs a little way down in the top layer of soil, and thereafter makes his hole horizontally.)

Then the Locust went over, and he got through. He climbed up out on La Plata Mountain at the place called "Where They Emerged." They found a lake of water standing there, it is said, impounded by Gray Mountain and Tobacco Mountain. There was a great expanse of water, in the midst of which Locust appeared as a black speck. There was something called Those With A White Spot On The Nose (a monster). These could be seen floating leisurely in the four directions. They appeared as black marks. The one on the south was blue; the one on the west was yellow; the one on the north was white, and the one on the east was black. Each of them was holding up an obsidian knife, which was their weapon. It was then the black thing from the east rushed at him. "Don't Blink! Don't Blink! Look Out!" said the Wind to him, said the Child of the Wind to him, whispering into his ear. That was one of our Holy Ones, who used to tell us things.

At this point the Monster made a pass at him with the weapon. Then the one from the south rushed at him and did the same. Then they initiated him from the four directions (as the Ye'ii initiate little children so the latter will no go blind).

"There are many people from down below. We were living in plenty in the Underworld, but the water was rising on us, and that is why we came up. It was said that we are to live here, The People say. It is thus that it has come about. So all of this water should be allowed to flow away," said the Locust.

"No," he was told.

"No," he said it is said. "Then I also refuse (to go back down into the Underworld)," said Locust.

This (dialogue) took place four times. Then he (Locust) pulled out something fletched with tail feathers. There was a passage through his chest, through which to pass these feathered objects. He ran the two objects across his mouth, and then through the passage in his chest, sticking one in from one side and one in from the other, and then crossing his arms to pull them out in opposite directions.

"All right, let's see if you can do what I did. If you can do what I did, then we will let the water stand," said Locust.

(He used to blink his eyes until the Wind told him not to do so, and that is why Locust does not blink even today.)

Then the black things said "No," that they could not do what he had done. So it was that he won the water.

Mountain Sheep was notified, and with a sheep's horn he dug the way out for the water. He dug through Tobacco Mountain (Grand Canyon Mountain), and the instrument with which he dug still stands over there where the mountains run together. "That's the Sheep's Horn," my grandfather said.

Then Badger came and made the hole from the Underworld larger, and the people emerged through there. Badger really got himself covered with mud, and that is how his belly became black.

But the water from the Underworld was still rising behind them, and presently from the hole there stuck the horn of Grabs Things In Deep Water.

"What's the matter. Why are we being treated this way?" The People said. "While we were living down there in the Underworld that one called Coyote really got into a lot of trouble and mischief. Could it be because he has the baby of Grabs Things In Deep Water?" they said. They searched him, and there it lay in his armpit. It fell out, and when this happened they knew.

They suggested throwing it back, but Coyote protested. "No, what will we have to live by? I did it so we would have this (as a power) to live by," Coyote said.

There between the horns of Grabs Things In Deep Water there was swirling black foam. A kind of Hard Goods called "perfect" was placed between the horns. In exchange for that the lapping water receded, and some of the foam was gathered by The People. "If this one is thrown back into the water, then what will we live by?" they said. Grabs Things In Deep Water, the one who had stuck his head up, went back down, and his baby came up above, to become the thunder and lightning. That's what we live with when it rains.

This earth was just a soft mass, it is said. The wind was notified, and for four days it blew. But the earth hardened and packed only slightly. So some foxtail grass was planted. Those of the squirrel family, such as the Fox Squirrel, brought the seeds of plants and nuts up from below, as food. A tree was planted, and it held firm by the roots.

First Man took the mountains he had picked up, a song was heard, and he put Sierra Blanca Peak in its proper location, over in the east. "Let this mountain be placed far away; let it lie far away, so our thoughts will be long," he said. He set Sierra Blanca Peak in its position, and it was of White Shell. Then Mount Taylor was set in its position, and it was of Turquoise. These two mountains were put in their positions, and both Hashch'e'elti'i and Hashch'eoghaan (two supernatural beings or divinities) took their place in them. Then San Francisco Peak was set in position. It was placed in the west, and was of Abalone. Hashch'e'elti'i and Hashch'eoghaan took their places in it. La Plata Mountain was set up in the north. It was adorned with Jet, and Hashch'e'elti'i and Hashch'eoghaan took their place in it.

So in the form of these Sacred Mountains was our Mother made for us. Sierra Blanca Peak is our Mother. Among the white people the missionaries speak like that. This mountain called Sierra Blanca Peak is our missionary (i. e. our religion). In accordance with it we live. In the midst of these four Sacred Mountains that were placed, there we live. With that, we who are The People are the heart of the world. These Sacred Mountains that were placed for us are the boundaries of our domain. They are our boundaries.

I am a medicine man, so I have some of the soil from these Sacred Mountains. These were established with White Shell, Sheep, Domesticated Animals, Maidens and Youths. In accordance with that do we live. Those of The People who possess livestock possess it by virtue of the power derived from the soil of the Sacred Mountains. And we who are medicine men, this is our way. We have the Mountain Prayers and the Mountain Songs.

It is said that Black Mountain lies in a clockwise position, with the one known as Navajo Mountain as its head, and Marsh Pass as its neck. The red rock running down from there is its comb (as the comb of a chicken). Balukai Mesa is the tail of Black Mountain, it is said, and Comb Ridge is its wing. Its other wing is the ridge that extends down into White Reeds Up Out. My grandfather said that they run out in opposite directions from each other. Coppermine Mesa is an ear-bob, and on the other side, over toward Tree Covered Point, which is also called Metal Is Dug Out, is the other ear-bob. So it lies in a clockwise (i.e. sunwise) position.

Over there on the other (eastern) side of Male Mountain, the one called White Fir Point (Chushgai Mountain), also lies in a clockwise position. The one called Chushgai is its head, and Beautiful Mountain is its tail. It is from the summits of these Sacred Mountains that the Sky Supporters stand. El Capitan is the center of the world, and on it too stands a Sky Supporter. From its summit he holds up the sky, like an umbrella.

Shiprock stands as the symbol of Turns Into Rock Monster. Bennett Peak and Rock That Extends Into The Sky (near Mt. Toylar) are the last of the rocks that stand in a line in the east. That is clear, as my grandfathe told it. That is my story, my elders. That is the story of my grandfather and of my father. My father was once called Wide Hat, and my paternal uncle was called Man Wounded By An Arrow. It was their story."

Into the Sacred Mountains were placed the prototypes of all things necessary to man, and these mountains also became the abode of certain deities or Holy People. Life may wax or decline in the space between the Sacred Mountains, but the perfect prototypes of all things reside in the mountains from whence life springs always anew in the land beneath in the form of imperfect copies of these prototypical perfect forms. It was thus predestined from the beginning, and the Sacred Mountains were placed in the Fifth World as the boundaries of the area the Navajo were destined to inhabit.

In accordance with the cosmic plan, the sun, the moon and the stars were created, stationed in the sky, and assigned their seasonal trails, and with them night and day and the seasons. And through the magic of the ears of corn from (or **with**) which First Man and First Woman were formed in the First World, man and woman were created from images into which a little breeze entered to give them life.

The origin myth is long and detailed, and as told by various Medicine Men it varies somewhat. The above sketch omits all but salient features of the story.[3]

2. The Navajo Deities.

In the Navajo pantheon there is no clearly distinguished deity who can be described as a Supreme Being, a fact which explains Jonathon Letterman's failure to find a word denoting that concept in the Navajo language. The Navajo pantheon is composed of many supernatural entities, among whom some figures, such as First Man, First Woman, Changing Woman, the Bego-chidi and the Sun occupy positions of preeminence. Others occupy less dominant or minor positions without, however, the clearcut divine hierarchy which characterized the Greek and Roman pantheons.

(3) See "Emergence Myth," by Fr. Berard Haile and Mary C. Wheelwright, Mus. Nav. Ceremonial Art, Navajo Religion Ser., Vol. 3 (1949); "Navajo Creation Myth," by Hasteen Klah and Mary C. Wheelwright, Nav. Religion Series, Vol. I, (1942); "Navajo Religion," Gladys A. Reichard, (1950); "Origin Myths of the Navajo Indians," by Aileen O'Bryan, B.A.E. Bul. 163 (1956).

Reichard[4] classifies the members of the Navajo Pantheon into groups on the basis of certain characteristics, functions and other distinguishing criteria. She describes as **Persuadable Deities** those Divine Beings whose motives are predominantly good. These include figures who played an important role in the creation and in the proper development of the universe for the ultimate benefit of Man; they are deities who are amenable to invocation by man to assist him in counteracting malevolence and evil or in assuring well being through the medium of ceremonials. Dr. Reichard includes Sun, Changing Woman, most of the divinities identified as Hashch'eeh, and the Racing Gods as primarily good and persuadable deities, accessible and willing to use their power in the interest of Man's well-being. She characterizes First Man, First Woman, Salt Woman and the Begochidi as borderline divinities, sometimes motivated for good, sometimes maleficent; usually difficult of accessibility by Man, and less easily persuadable in his interest. In fact, First Man and First Woman control witchcraft and, through sorcery they are sometimes responsible for disease and misery.

A second group includes the deities who are primarily motivated by malevolence. These possess power for good but they are persuadable only with great difficulty and are **Undependable.** Dr. Reichard places First Man and First Woman in this group as well as in the **Persuadable** class.

A third class of supernaturals comprises the **Helpers** of both gods and men. They bridge the gap between the Holy People and the Earth People, and include such personifications as Big Fly, Bat, Darkness, the Wind, the Child of the Wind, Sunbeam and others. Their function is to instruct, warn, answer questions and foretell future events. One type of Helper is usually found in the role of a messenger of the gods, or as a Being who reconnoiters and provides necessary information to the divinities. Many of this type of Helper are birds or animals, including Dove, Turkey, Beaver, Owl and Badger.

As Reichard points out, there is no sharp line of distinction between the Holy People or Supernaturals and the Earth People or ordinary men. The two classes shade and blend one into the other, and the legends recount instances wherein children are born of unions between the two, adventures involving direct association of mortals with the divinities, and instances in which figures born as ordinary men become divine or semi-divine. Even the casual student of the mythology of the Greek, Roman, Egyptian, Sumerian, Indic, Germanic and other peoples will discern the similarities and analogies that obtain between those people and the Navajo in the matter of their conceptual relationship between man and the gods, in the motivations and personalities of individual deities, in the role of the semi-divine Culture Hero, and in the very theme of some common myths.

Important in Navajo legend are the Twin Culture Heroes who obtained weapons from their father the Sun to overcome the major evils that made the world unfit for human habitation. The Twins are commonly referred to as Nayenezghani (the Slayer of Enemy Gods or Evils) and To Ba Jishchini (Fathered By Water) and they figure prominently in the legends of many chants. They are **Intermediaries** between the gods and Man, suffering all the failures and tribulations of mortals in their efforts to accomplish beneficial purposes, but sharing the characteristics of both Holy Beings and Earth People and maintaining strong ties among both groups.

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(4) Reichard, Gladys A. "Navajo Religion," Vol. I, Chapt. 5 (Publ. 1950 by Pantheon Books, Inc.)

The monsters of Navajo legend are classified by Reichard as **Unpersuadable Deities** whose primary motivation is evil and whose power man cannot invoke for good. They are commonly known as Ye'ii,* and were conquered by the Twins. However, they must be ceremonially propitiated by means of exorcism to preclude the danger of their malevolent power affecting man. The **Unpersuadable Deities** stand at the opposite pole from the **Persuadable Deities,** both classes shading into the **Undependable** Deities as an intermediate class.

In addition to the specific divine categories described above, certain types of dangers are treated in the legends in personalized or deified form. Reichard illustrates this class of menace to man with such mythological phenomena as the Sliding Sands, the Cutting Reeds, and the Crushing Rocks which the Twins encountered and conquered. Again, there are gradients of good and evil with an intermediate class which the Twins encountered but decided to spare for man's ultimate benefit. These include Old Age, Cold, Poverty, Hunger, Sheep, Lice, Meat-Craving, Desire and Want, as listed by Reichard.

Reichard emphasizes the great difficulty attendant upon classifying individual gods of the Navajo pantheon. They may have many duplicates and many names distinguishing them on the basis of one or another facet of their personality—one or another manifestation of their power or motivation. Reichard expresses the belief that Navajo religion is predominantly a Sun Cult, in which the Sun, functioning as a central deity, correlates the universe, a monistic concept in which the ostensibly independent parts of the universe blend finally into oneness. Thus, if it were not for the sharp Male-Female dichotomy that so generally pervades Navajo religion and culture, it might well be the Sun who manifests himself variously as Changing Woman, First Woman, First Man, Begochidi, one or another of the Hashch'eeh, or in other guises distinguished by different names in different situations—each such name actually only serving to distinguish a variant manifestation of the same entity, as though each facet of a cut diamond were distinguished from its neighbor by an individual name based upon attributes not totally shared by adjoining facets. Yet, all the multiple planes would be viewed as manifestations of the diamond as the fundamental entity. In the case of Sun, some facets are motivated for good, some for evil and some for both as far as man is concerned. In fact, if one pursues this (binary) monistic viewpoint to its logical end, Man himself becomes but a manifestation of Sun—one of the facets, with an infinite number of duplicates.

These are concepts that may be drawn from study and analysis of Navajo legend and ceremonial; they are not embodied in a creed or formalized doctrine by the Navajo themselves, nor do they necessarily represent the manner in which individual Navajo, whether laymen or shamans, conceive of the pantheon and the universe. This is a construction deduced from the legends, and one which conceivably could become a creed and basic doctrine if the Navajo religion were ever to be formalized into the familiar Asiatic-European pattern.

Whether the members of the Navajo pantheon are taken as independent Beings or as facets of a single Being, the fact is amply apparent that gods and men share many characteristics in common. Like Ishtar of the Sumerians and a host of other deities of the ancient world, the Navajo gods embody both good and evil; they are variously depicted as chaste and lascivious, faithful and treacherous, kind and cruel, predominantly beneficent, predominantly maleficent, or intermediately good and bad just as man might logically depict himself. There is no clearcut divine dichotomy of good and evil; no deities that wholly personify good and no demons who have an exclusive claim to evil except to the extent that the **Persuadable Deities** and the **Monsters** may be representative of these extremes. There are no Navajo cults and no temples to the gods in the Asiatic-European sense and, although Man may become the victim of divine malevolence he does not consider himself to be subservient to the deities in the Asiatic-European manner.

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*From yee', terror, fear, awe, dread. Thus Fearful or Dreadful Ones. Cf. yee' bii' niseya, I placed myself in dire jeopardy (lit. I went into terror and returned).

When Man (the Navajo) was created, he was placed in a world bounded by Sacred Mountains, wherein he was taught by the Holy People how to gain his livelihood and control his environment for good or evil through the magical medium of ceremonials in which certain of the Holy People could be involved to assist with special supernatural powers.

As there is no clearly defined divine hierarchy in the pantheon, and no temples or cults associated with religious practice, neither is there a priestly administrative hierarchy on the basis of which the religion is organized for practical purposes. There is a group known as "Singers," or more commonly in English as "Medicine Men" who individually acquire knowledge of one or more of the complex chantways or ceremonials, by dint of long apprenticeship, and who thereafter become practitioners corresponding roughly to the priests of other religions.

3. Navajo Religious Dogma.

The teachings and beliefs of Navajo religion are set forth in the many legends that pertain to the major ceremonies. The legends are authoritarian and as our theologians look to the Bible as the source of all knowledge, so does the Navajo believe that answers to all fundamental philosophical questions may be found in the legends.[5] These contain the origin story, as we have pointed out, tracing man's evolution through the underworld, his movement toward present form and being by the acquisition of knowledge, the history of the original clans, the exploits of the Culture Heroes, the background and origin of the ceremonies, explanations of taboos, and many other subjects.

Predestination—or progression toward the realization of a preconceived plan—is evidenced throughout the Navajo origin story, with the perfect prototypes of what is **destined to be** already existing in the underworld. The major goal of the plan as it was elaborated by First Man and First Woman was Man, and the various steps in carrying out the plan were steps in preparation for his coming. Man is central and paramount in the Navajo world, with

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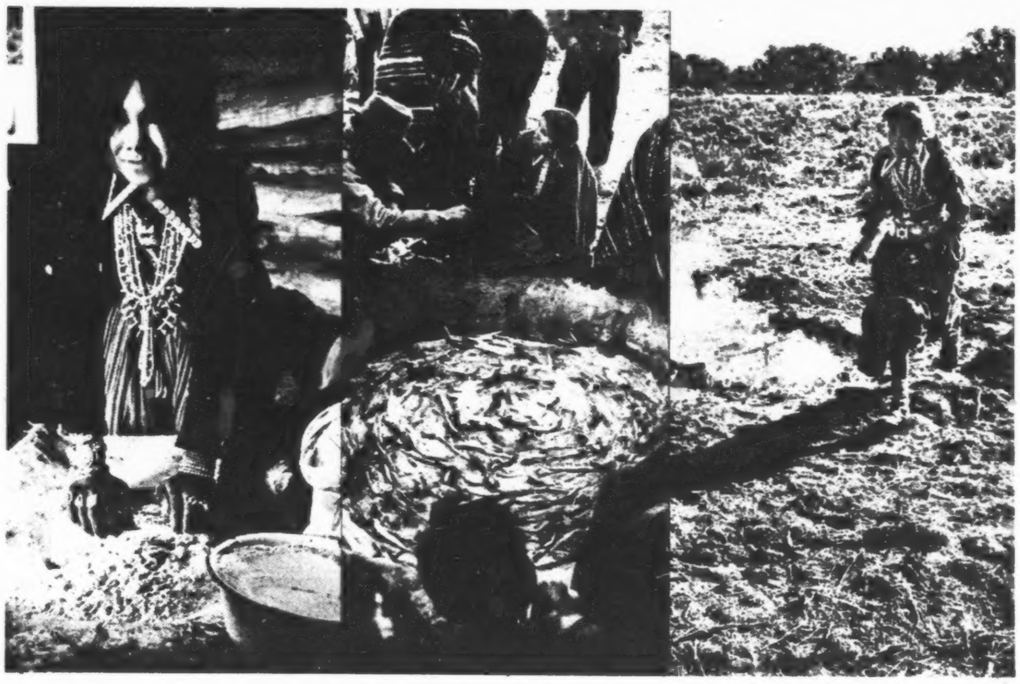
(5) The long period of time that has elapsed since the Navajo acquired livestock, and the position of pre-eminence accorded to the sheep, are reflected in the fact that the creation of sheep and other domesticated animals is described in the legends as an answer to a fundamental question of the origin of livestock. "After the mountains were placed in this world and the various plants were created, life was given to that called sheep. In the east, chamise was placed for the sheep, and they were freed to go to it. Mormon tea was placed for them in the south, and they were freed to go to it. And in the north, black mountain mahogany was placed and they were freed to go to it. Thus it was that the sheep were set free to go in the four directions. They ate and then they shook themselves, whereupon black clouds came together in a mass overhead, and on the same day hail fell. And on the same day the plants that had been placed with their mates on the world began to multiply and grow. After the plants began to grow, the other kinds of livestock were created. Different kinds of horses, different kinds of sheep, mules and burros all came into being. And creation was finished. We were told that, in the time to come, we would live on these things.****" (From Young and Morgan, Selections from Navajo History, P. 62.)

the sun, moon, stars, animals, plants, ceremonial knowledge, and all the rest of nature created for his use and benefit.

Man's primary problem is to control his environment for his own benefit by observing taboos and by avoiding or overcoming disease, misfortune, distress and evil through proper exercise of ceremonial magic. He must maintain himself in balance with nature, reestablish his balance once lost, or perish.

Navajo religion is a system of imitative and sympathetic magic aimed ritually at fulfillment of the requirements of life and living; it is not concerned with preparation for death and afterlife. The dead are feared because they may contaminate the living with their evil, but the fact of dying is not looked upon with horror. After death man loses his identity and merely becomes one with the universe, a condition in which he is neither purnished nor rewarded. Religion helps him in life but is not needed after death.



At puberty a girl is ushered into society by a special ceremony. Adorned with jewelry she performs certain ceremonial acts, including the grinding of corn meal on a stone metate. This task must be done each day for 3 days, although she is usually assisted by other women, either family members or relatives.

The corn meal, ground in the 3 preceding days, is made into a batter and poured into the heated pit at sunset of the last day. It is sweetened with sugar, honey or syrup nowadays, and the bottom and sides of the pit are lined with moistened corn husks turned rough-side up to keep the cake clean and prevent sticking. After the batter is poured the initiate tosses some of the ground meal from a basket she holds to each direction, as an offering, accompanied by a silent prayer. Others may follow suit to make a similar offering from her basket, praying out loud as they throw the meal. The cake is finally covered with husks, moist and dry dirt, ashes and fire to bake. The cake is uncovered after the last dawn run on the morning of the 4th day, and each medicine man who parcipated during the last night receives a piece, and the remainder is distributed to other participants, family members, neighbors, etc.

Each day at noon the initiate takes a run in addition to the runs she takes on each of four mornings at dawn. Her first run takes place on the morning following her first noon run, and the last dawn run is made on the morning following the 4th night ceremonial during which various medicine men "sing" over her. Although usually accompanied on her runs by others, she is here running alone past the fire-pit, dug on the morning of the 3rd day, in which her puberty cake will be baked on the last night of the ceremony. (Photos by LIFE Photographer Leonard McCombe, (C) 1948, TIME, Inc., used by special permission of LIFE MAGAZINE.)

Navajo religion finds its expresion in a large number of distinct ceremonies, 58 or more, each with its own body of legend tracing its origin and outlining the prescribed procedure detail by detail. Reichard aptly describes the ceremony as **a complicated charm,** involving ritualistic purification by sweat bath and emetic, the fashioning of prayer sticks and other ceremonial objects, the making of complex sandpaintings, songs, chants, prayers and the like. Each minute detail must be rigidly adhered to—any departure from the prescribed procedure, whether it be improper fashioning of the prayer sticks, omission or faulty order in the chants and prayers, or neglect to observe taboos connected with a particular ceremony, may cause failure in achieving the results for which the ceremony is carried out, and may endanger the very lives of the participants.

There are minor and major ceremonies; some lasting only one night or less, some lasting nine nights or more. Some are primarily prophylactic in nature, serving to ward off evil or attract goodness; some emphasize exorcism of evil and restoration of the person or persons for whose benefit they are held. In view of these facts, Reichard classifies the ceremonies into two major categories; Blessing Way and Evil Way;[6] Kluckhohn and Wyman divide the ceremonies into six major groups, based on elements of ritual; Blessing Way, Holy Way, Life Way, Evil Way, and the War and Game ceremonies.[7] The six groupings are further subdivided into variant branches and forms. Under the classification Blessing Way, Reichard lists such ceremonials as the House Blessing, Girls Adolescence, Wedding, Rain, Fertility and Increase, Life, War, Night Chant, Beauty Chant, Water Chant, Wind Chant, Mountain Chant, etc. Under Evil Way she places such ceremonials as those concerned with Hunting, Trade, Gambling, Excess, War, the Evil forms of the Male and Female Shooting Chants, the Evil forms of the Mountain Chant, etc.

Kluckhohn and Wyman[8] outline the uses to which the various chants or ceremonies are put. Thus the Hail Way is a specific for persons injured by water, for frozen feet or parts, and for muscle soreness, tiredness or lameness. The Male Branch of the Mountain Chant is user for persons suffering from constipation, anuria, gall bladder trouble, mental sickness, etc.

As a generalization, the first portion of a major ceremonial is devoted to purification, the fashioning of the prayer sticks and other preparatory activities. When completed, the prayer sticks are placed at a nearby location where the deities concerned will be sure to see them. If all requirements have been adequately met, the deities cannot refuse the invitation or request thus proffered, and they must respond to assist in carrying out the ceremony. The Medicine Man who conducts the ceremony becomes himself identified with the deities and thus gains the power to control for good or evil. Most generally he is concerned with controlling for good in the interest of a patient who requires prophylactic attraction of good or exorcism of evil. Many ceremonies are customarily restricted to the winter season.

Disease, misfortune, distress and other evils are caused by contact with a corpse, by failure to observe taboos and ceremonial regulations, by animal spirits, by natural elements or phenomena such as whirlwinds, lightning, water, or worst of all by witchcraft. As we pointed out above, each ceremonial is

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(6) Reichard, Gladys A., "Navajo Religion," Vol. I, pp 322-323.

(7) Wyman, Leland C. and Kluckhohn, Clyde,. "Navajo Classification of their Song Ceremonials," Mem. of the Amer. Anthrop. Assoc., No. 50.

(8) Op. Cit. (7).

especially adapted to a particular set of uses, to combat or thwart one or another disease or misfortune.

The specific ceremony required is determined by divination,[9] itself a ceremony, and one carried out by a process of Hand Trembling, Star Gazing or Listening. Different diviners use different methods, of which the Hand Trembling and Gazing are the most common. In any case, the practitioner goes into a trance, in which state he divines the cause of disease or distress and designates the ceremonial remedy required. Divining may also be used to locate lost objects and persons, and for purposes of determining future events.

All Navajo ceremonies are conducted for a purpose whether it be for attracting good or for the exorcism of evil, and the purpose is basically one of magically controlling the environment for man's benefit. Although our non-Navajo rituals differ from the Navajo in form and practice, as our theories of disease differ from those of the Navajo, we too are concerned with the ritualistic invocation of supernatural power to aid us in the attainment of immortality, to ward off evil or even cure disease, as well as for other purposes. Nor are rites of exorcism foreign to us; members of our culture commonly used them in the past and still rely opon them today in some parts of Christendom.

The legends, prayers, poems and songs that make up the immense body of Navajo Sacred Literature exhibit great beauty and imagination and are in no wise less worthy of literary rank than the Homeric poems, Hymns of the Rig-Veda and many other heritages from our own past. There are stories of adventure and magic, hero-myths and travels. There is humor and suspense, in tales told with mimicry and great beauty in the Navajo language. The poems form parts of chants; beautiful in content, and chanted in a perculiar rhythm with vowel lengths and tones of the words altered in a characteristic manner.

The legends are too long for inclusion here, and the poetry retains only its "shell" in translation, since much of its beauty lies in its delivery in the language of its composition, by a Medicine Man. In translation, one of the Songs of Talking God, goes as follows:

Now I walk with Talking God.
It is with his feet I go;
It is with his legs I go;
It is with his body I go;
It is with his mind I go;
It is with his voice I go;
I go with twelve feathers of the white eagle.
With goodness and beauty before me I go;
With goodness and beauty behind me I go;
With goodness and beauty above me I go;
With goodness and beauty below me I go;
With goodness and beauty in all things around me I go;
With goodness and beauty I follow immortality.
Thus being I, I go.

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(9) V. "Gregario The Hand-Trembler," by Alexander and Dorothea Leighton, Papers of the Peabody, Mus. of Amer. Archaeol. and Ethnol., Harvard University, Vol. XL—No. I (1949).

4. Navajo Witchcraft.[10]

Most ceremonials are conducted to attract good or to ward off evil, because Good is a greater value in most men's eyes than Evil. However, both the deities and men are composite, containing both good and evil thoughts and motivations. Therefore, ceremonies and rituals may be performed or misperformed to attract evil to a victim, just as, not many years ago in Europe, it was believed that the Mass could be performed backwards —the so-called Black Mass—to attract evil. Our own ancestors believed firmly in the reality of witchcraft until very recent times, a fact to which the multitude of men and women who lost their lives in the five hundred year period between the 12th and 17th centuries, burned or hanged for witch craft and sorcery, could attest.

The were-wolf is still not dead in many modern countries of Europe and in other parts of the world, and there are still many non-Navajos who firmly believe in lycanthropy—the ability to turn into a wolf. That belief is shared by the Navajo who call such persons yee naáldlooshii.

According to Navajo legend witchery began in the underworld, having been originated by First Man and First Woman themselves. To become a witch it is said that a person must commit incest, murder a close relative, or commit some other heinous crime by way of initiation and to obtain the necessary power for evil. Once gained, the power may be used to gain wealth, wreak vengeance on an enemy, or for any of the purposes we commonly listed in our own culture, historically.

In our witchcraft stories we conceived of the witches periodically attending a gathering of their kind at a Witches' Sabbat[11]—sometimes called a Witches' Sabbath. So also do Navajo witches hold periodic meetings, at which they are said to defile the Sacred (by spitting on or dirtying the sandpaintings and distorting ceremonial prayers) just as their European brothers conducted a Black Mass and otherwise defiled what is Holy. Some drugs and plants are associated with witchcraft by the Navajo, just as aconite, belladonna, cinquefoil and others were reportedly[12] used by European witches to produce frenzy. And again, as in the instance of their Old World cousins, the Witches' Sabbat is conducted by a leader.

Evil can also be worked by sorcerers who concentrate their evil thoughts upon a victim, shoot evil with their eyes, or make an image of the intended victim and pierce it with a thorn. Nail parings, clothing or other objects closely associated with an intended victim can be placed in a grave or otherwise used to work evil upon him, just as sorcerers in our society used similar objects to accomplish their evil purposes—and still use them according to occasional newspaper accounts.

Although Navajo society has never made the concerted effort to extirpate witchcraft that was made in Medieval Europe and even in our own Salem, Massachusetts, murders of persons for witchery have occurred, and occur to the present day. Traditionally and actually Navajo belief in the ability and inclination of some persons to attract and direct evil to cause illness, death and other misfortunes is a very real belief, and the degree to

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(10) Kluckholn, Clyde, "Navajo Witchcraft," Vol. XXII—No. 2., Papers of the Peabody Museum of Amer. Arch. and Ethnol., Harvard Univ. (1944); Sprenger J. & Institutoris, H. "Malleus Maleficarum (The Witches' Hammer) Rodker (1928); Murray, M. "The Witch Cult in Western Europe," Clarendon Press (1921).

(11) From French s'esbattre, to frolic, according to H. W. Smith.

(12) Homer W. Smith, "Man and His Gods," Little, Brown & Company, Boston, 1955.

which it parallels our own beliefs of a few decades past is remarkable. As in our society, Navajo witchcraft can be combatted by exorcism.

Perhaps some elements of European belief in Witchcraft have been incorporated by a process of syncretism into Navajo doctrine, in view of the long contact with Spanish speaking people. Most assuredly, many aspects of Navajo religion have been borrowed from the non-Navajo and assimilated into a Navajo system. The legends themselves trace the origin of many clans to Pueblo, Ute, Hopi, Mexican and other sources, largely through intermarriage with non-Navajo women. It is very likely that such association was a source of many elements of Navajo religion, although the elaboration that we observe in present day ceremonials is most certainly a reflection of Navajo creative and imaginative genius.

5. Non-Navajo Religions.

Since Fort Sumner times, and especially since the opening of the 20th Century, contact with Christianity has steadily grown. Less than a half century ago the Roman Catholic, Episcopal, Christian Reformed, Presbyterian and Methodist churches maintained less than a dozen missions in the Navajo Country. Today, there are more than 76 missions scattered throughout the area, most of which entered just after World War II. Some operate modern schools and medical facilities; others are exclusively concerned with evangelization. Some groups pursue a long term policy of gradually superimposing Christianity on the native religion to ultimately supersede it; other groups maintain a short term policy and strive to extirpate native religion immediately to replace it with a form of Christianity. Regardless of the policy pursued by evangelistic groups, the Navajo continue to practice the native religion and often find no inconsistency in simultaneously participating in Christian practices in view of the fact that one of the primary objectives of the latter is immortality, in contradistinction to Navajo religion which is concerned only with life—or with death only to the extent of attempting to avert it. In recent years the growth of education on the Navajo Reservation is rapidly changing the Navajo way of life to which the traditional religion was and is so closely attuned. It is strictly a Tribal religion, and its benefits and practices are not generally applicable to non-Navajos. Further, ceremonies must be carried on within the area bounded by the Sacred Mountains, and nowadays Navajos are going, in ever increasing numbers, to live in areas remote from Navajoland.

Although ethics is not a concern of Navajo religion, the teaching of a code of social behaviour and the inculcation of social and moral values in children by elder members of the family was a common winter's night pastime in former times. Nowadays, with a majority of the children in school during the winter months, there is neither opportunity for them to attend the winter ceremonies or receive traditional instruction from their elders. Nor are they nowadays being trained to take their place in the traditional society, but rather to merge with and integrate themselves into our own. These changes no doubt spell the ultimate, and perhaps not too distant, extinction of the traditional way of life wherein the white man's school and church will finally replace the traditional Navajo institutions.

The movement away from the traditional religion has been not only toward the usual forms of Christianity, but also toward an "Indianized" form known as the Native American Church—or more commonly as "peyotism."

This sect or cult is characterized by ceremonial use of a cactus button containing mescaline and other alkaloids capable of producing certain psychological effects when ingested in sufficient quantity.

Peyote[13] has been used by certain Mexican Indian groups for many centuries, and during the latter quarter of the past century its use spread among many of the Plains tribes where it was taken in conjunction with rites and ceremonies of part-Christian, part-Indian content and origin. In about 1910 peyotism spread to the Southern Ute, and after 1935 it began to spread, collaterally with livestock reduction, to the Navajo Country. The extent of its spread is not known, although Dr. Aberle has estimated the number of Navajo members at 12,000 or more.

Since its introduction in the Navajo Country, a bitter controversy has revolved about the Peyote cult. Adherents of traditional Navajo religion and representatives of Christian groups have joined in denouncing the peyote button or its alkaloids as an addictive narcotic. Both groups have accused peyotists of immoral, orgiastic behavior, and have sought to ban the practice. Since 1940 the Navajo Tribe has proscribed the use, sale, barter and gift of peyote on Tribal land, although enforcement of the ordinance has been sporadic and ineffectual. The Federal Government approved the anti-peyote ordinance, recognizing the right of the Tribe to govern its internal affairs but, since Federal law does not ban the use of peyote under the Federal Narcotics Act, Federal Police Officers could not be used to enforce the Tribal law.

Peyotism is a radical departure from traditional Navajo religion in many respects, although membership in the cult does not preclude continued participation in the traditional religion. In fact, Dr. Aberle reports that some Medicine Men are themselves cult members. Mystic and theoleptic in nature, peyotism exhibits an emotionalism that is totally atypical of the traditional religion—a contagious emotionalism not unlike that attending the ancient Dionysian cults or, in modern times, revivalism, and the emotional outbursts that characterize the practices of certain Christian sects.

Peyote is ingested ceremonially to place man in communication with God, since peyote is looked upon as a holy plant imbued with supernatural power. In fact, the alkaloids contained in the "button" reportedly have the power to produce colored visions and other psychological effects. Communicants experience unusual sensations, thoughts and emotional disturbances during which they may weep, confess their sins and wrong-doings, and pray.

The prayers are universal, seeking the blessing of all mankind in contradistinction to the restrictive prayers of traditional Navajo religion, and make frequent reference to God, Jesus, Mary and other Christian figures. They express a feeling of helplessness and refer to mankind as "children" whom the Heavenly Father must shield and protect.

Peyote links man with God, with whom he can then communicate his needs, and from whom he can acquire knowledge or regain his health. Navajos apparently join the peyote cult initially to seek cures for diseases from which they are suffering and for which traditional ceremonies have

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(13) For the most part information contained herein with regard to Peyotism on the Navajo Reservation, was taken from an unpublished report by Dr. David F. Aberle, who will shortly publish a more comprehensive study.

proven to be ineffectual. Others are proselytized by kinfolk who have become cult members.

Livestock reduction in the 1930's threatened the security of the Navajo people and left in its wake a wave of apprehension, frustration and fear, a circumstance no doubt closely associated with, if not responsible for, the advent and spread of peyotism.

The Native American Church has existed among Indians in parts of Oklahoma and in other states for many years; whether it will follow the same course in the Navajo Country, only the future can tell.

6. Death.

At the time of the Emergence from the underworld, the Sacred Mountains were brought up from below and placed as the boundaries of the world the Navajo were predestined to inhabit. The Sacred Mountains were identified as male or female—i. e. as possessing the essence of maleness or femaleness—and were appropriately adorned with "hard goods" (white shell, turquoise, jet, banded aragonite, etc.), covered with mist, rain, sunbeams, mirage, pollen and other embellishments. The Sacred Mountains became the home of various Hashch'eeh and other supernaturals, and they were covered with **Sa'a (Tsa'a) (Tsi'a) Naaghai** and **Bik'eh Hozhoon.** These are abstractions difficult to translate into English, and indeed difficult of definition by Navajo medicine men themselves. Perhaps Sa'a Naaghai can be described as the essence of life—the power of vegetation to rejuvenate itself and that of the species of animate life to replenish their kind. It is the power of continuity of life itself, without which all living would end. Perhaps Bik'eh Hozhoon[14] can be described as the essence of universal harmony and order, a necessary concomitant of the power and fact of animate and inanimate reproduction and living. Without such harmony and order, the orderly continuity of life would be hampered or made impossible and there would be universal death, not only of individual living entities but of life itself.

With respect to individual plants, animals and men, death is conceived as a normal end of the individual life cycle, and an aspect of the destiny of Man from the Navajo viewpoint. Although during life he attempts to avert death and prolong living through observance of taboo, proper ceremonials and other media, he does not live out his years in morbid fear of his ultimate demise. In fact, death is accepted as a necessity for, when the Twin Culture Heroes were subduing the monsters and personalized dangers or evils that threatened to make the world uninhabitable by Man, they spared Death as a borderline evil whose ultimate effect is beneficial to Man and to the orderly continuum of life. In pleading his case, Death pointed out to the would-be Conquerors that without him the aged would soon fill all available space in the world and there would be neither room nor resources for future generations of people.

At death, according to traditional Navajo belief, a person's breath (hayol), and "that which stands within one" (hayi' siziinii) leave his body to lose their identity and blend into the cosmos. They are the essence of life which animated him during the time he was a living organism, but like a

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(14) Navajo bik'eh: acording to it; hozhoon: probably a nominalized form of hozhoni: it (spatial or impersonal "it"—the universe) is beautiful, perfect, harmonious, good. cf. nastaan, a similarly constructed verbal noun equivalent to nastani; log (lit. a slender stiff object lying horizontally). Thus, possibly, bik'eh hozhoon: that according to which there is perfection, beauty, goodness and harmony. Sa'a (tsa'a) naaghai is difficult to define etymologically.

measured quantity of water poured into a river, they are no longer identifiable as **him** after they leave his body.[15] In a sense these terms are translatable as "soul" or "spirit," but without the connotation that they retain the characteristics or identity of the person to whom they pertained in life. In another sense, "that which stands within one"—the essence of life with respect to an individual entity—is comparable to Sa'a Naaghai, the essence of the continuity of life in a universal sense.

However, Man is a composite of good and evil. At death the essence or spirit of life, his breath and "that which stands within him" leave his body to blend with the cosmos and lose their identity, while the evil side of his personality remains as an unassimilated residue contaminating his corpse, the dwelling place in which he died, his possessions, and the place where he is buried. This evil remains as a ch'indii, potentially dangerous to the health, welfare and even the lives of those who come in contact with it. If he dies within his hogan, the dwelling becomes uninhabitable, and even its timbers become unusable. Sometimes the moribund are taken outside or to a hospital to die, and burial must follow prescribed rules of procedure and ritual if those concerned are to avoid contamination.

Navajos fear and avoid the dead, taking every possible precaution to prevent contamination. Coyotes are scavengers potentially harboring ch'indii, and an evil spirit may sometimes appear in the form of a coyote, often as a warning of impending misfortune.[16] Sometimes a ch'indii reportedly takes the form of a man, bird or animal, or acts to produce bad dreams, anxiety, disease and even death. According to accounts of witchcraft, material associated with an intended victim is sometimes buried in a grave in order to contaminate and bring evil upon him.

Navajo belief does not teach the doctrine of an afterlife in the sense that the soul or spirit retains its personal identity, or in the sense that the person is rewarded or punished according to his deeds. He does not, so far as the legends teach, gain personal immortality, and Navajo religion concerns itself only with the prolongation of life—the averting of death—it is not a preparation for afterlife. If there is a post-mortem existence for Man it is in the memory of those who survive him, and in future generations in which he was a reproductive link.[17]

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(15) Cf. Latin anima, breeze, breath, mind, soul, and its various forms in the languages derived from Latin (Spanish, Italian, alma, anima; French ame, etc.) with the meaning of English soul.

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(16) Recently the estranged husband of a Navajo woman shot himself and his wife to death. Her relatives gave an account of how, the previous day, she had seen and heard two coyotes on a nearby hill as she herded her flock. She sent her dogs to drive them away, but the coyotes attacked and drove off the dogs. This fact, plus the circumstance that two coyotes were together, howling in the daytime, was taken as a warning, and its implications were interpreted after the tragedy as meaning death for two people. She herself had been frightened and had told the story.

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(17) By some the afterworld is identified as chindiitah, and is placed somewhere far to the north below the level of this earth, possibly the uppermost of the underworlds. This concept is based upon an account, in the Origin Myth, of the first death, in which some of The People were missing after the Emergence from the underworld. The missing persons were found by someone who looked down the Emergence hole, and it was discovered that they were dead. Some believe that, after death, a person returns to the Underworld, possibly through the Emergence hole.

With regard to the nature of the underworld and an afterlife, some believe that people continue to live much as they live in this life and in this world, while others believe the underworld to be dark. See **Navajo Eschatology,** by Leland C. Wyman, W. W. Hill and Iva Osanai, publ. 1942 by the University of New Mexico Press.

Customs, practices and concepts attaching to death and burial, as well as to marriage, have undergone many changes in Navajo society over the course of the past twenty or thirty years.* However, in view of the fact that, according to traditional beliefs, an unassimilated and potentially dangerous residue of evil is left behind when a person dies, burial customs in traditional times—and, for that matter, among members of the Tribe who follow a traditional way of life to the present day—are designed to accomplish disposal of the corpse while, at the same time, protecting those who have come in contact with it.

Although no one invites an opportunity to come into contact with the dead, the preparation and burial of one's close relatives constitute a duty which everyone (exclusive of medicine men) must accept when called upon, unless the moribund person can be taken to a hospital before he expires, or unless a missionary, trader or other stranger can be found who will perform all or part of the unpleasant duty.

Disposal of the corpse is performed by a group of two to four of one's kinsmen, recruited for the purpose. They are generally close relatives, although a surviving spouse or sibling is usually not called upon for this purpose except in cases of emergency. Nor does a close relative who is a medicine man participate as an attendant in burial ceremonies. In fact, medicine men traditionally avoid contact with the dead. Disposal of the corpse is referred to by a term meaning "to lose," "to make to disappear," "to get rid of," "to throw away," with reference to a single bulky, roundish object.

The attendants strip off their clothing, and the men don breechclouts while female attendants wear an old skirt which can be thrown away following the burial activities. Women involved in this manner loosen their hair and allow it to hang down over their breasts.

Two of the burial attendants wash the corpse, dress it in its finest clothing, and otherwise prepare it for burial, placing the shoes on opposite feet—i.e. the left shoe on the right foot and vice versa. The face of the corpse is sometimes painted with "chiih" (red ochre), especially if this material is available. A surviving spouse or other very close relative chooses items of jewelry and other personal effects that are to be buried with the deceased, and usually these items are damaged or broken in such a manner that grave-robbers will not be attracted. Sometimes cash is buried with the deceased, (reportedly) in amounts as high as $500, although this practice is not by any means common involving such large amounts.**

Two of the attendants function as pall-bearers. If the death occurred inside a hogan, the construction of which is such that the walls can be broken out, the north side is often breeched and the corpse is borne out through the hole instead of through the door. If the construction is massive, of logs or masonry, the door is used. The pall-bearers back out of the hogan, brushing away their tracks. The corpse is carried to a previously determined place of interment, in the form of a grave dug into the earth, a deep crevice in the rocks where it can be protected from wild animals or to a location where it may be covered with a pile of rocks, limbs, cactus and other material which make it inaccessible to animals.

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*Mr. Paul Jones, Chairman of the Navajo Tribal Council, and Mr. John Y. Begaye, Chief of the Tribal Department of Health, Education and Welfare, have generously assisted in the preparation of this article.

**Even Navajos are known to joke about death—especially the more acculturated, as evidenced by the story of the death-attendant who picked up the cash and left a personal check in its place!

It is said*** that, in former times, slaves were obliged to carry the body of a deceased Navajo to the grave, and they were subsequently killed and left at the place of burial. Even in recent times, and perhaps to the present day in isolated instances, a favorite horse is slain at the graveside. Broken saddles, guns and tools are frequently found on graves.

It is said that, in the past, the corpse was laid on its side, facing westward, with its head to the north. This requirement apparently no longer obtains.

Following burial, the attendants obliterate tracks they have left around the grave and return to the family, following a circuitous route instead of retracing their steps over the route they followed with the corpse. The objective is to complete a circle. They must neither look backward toward the grave nor must they converse or turn any stone over as they return. They return at an irregular trot, jumping and hopping from time to time.

When they have returned to the family, they wash themselves with water and, with the family, remain in mourning for four days. All members of the family who were present at the time of death, or who viewed the corpse, including the burial attendants, must fast during the period between the time of death and the burial. Afterward, the family and the attendants may take food, although the latter must eat separately and use separate utensils.

The family and the attendants remain in seclusion for a period of four days following the burial, sometimes removing themselves to a temporary camp where they isolate themselves during the period, using only the oldest tools and utensils for their everyday needs.

On the third night following burial, family members may discuss problems with a bearing on such adjustments as must be made in their lives in the future, and with reference to the distribution of goods belonging to the deceased. On the fourth day the attendants may return to inspect the grave and to make sure that it has not been disturbed. On the fifth morning, the attendants as well as the family members bathe, often taking a sweat bath, and the matter is concluded.

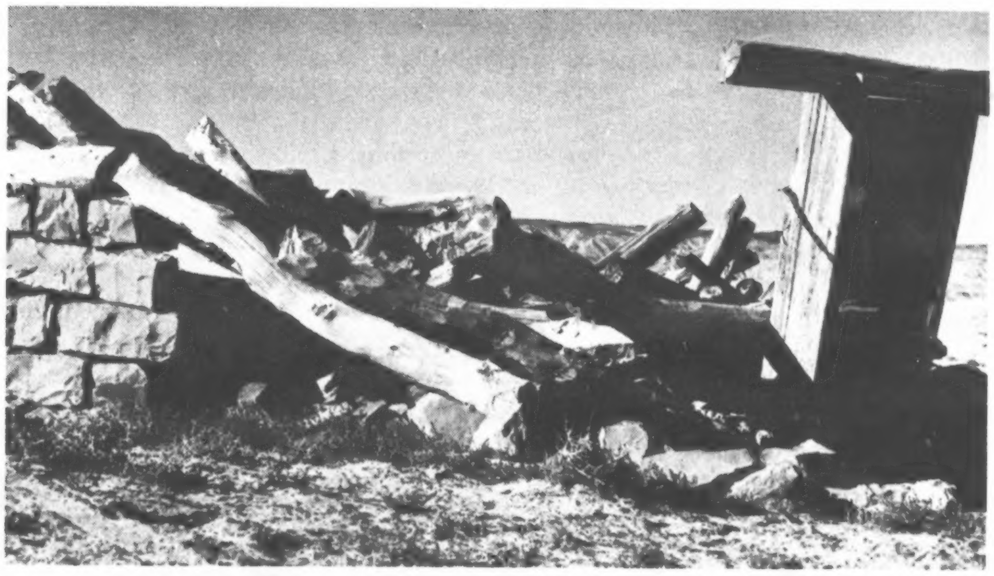
If the death occurred in a hogan, the dwelling is no longer used. It is burned, or supporting beams are dislodged permitting the roof to collapse. The north wall may have been breeched at the time the corpse was carried out. The need to destroy a dwelling where death has occurred led to the cruel practice, in former times, of carrying the moribund person outside to a more or less remote location to die. If feasible, a brush shelter was erected over him.

During winter, when inclement weather or other adverse conditions require, a corpse is often buried within the hogan, and the structure is pulled down over the grave.

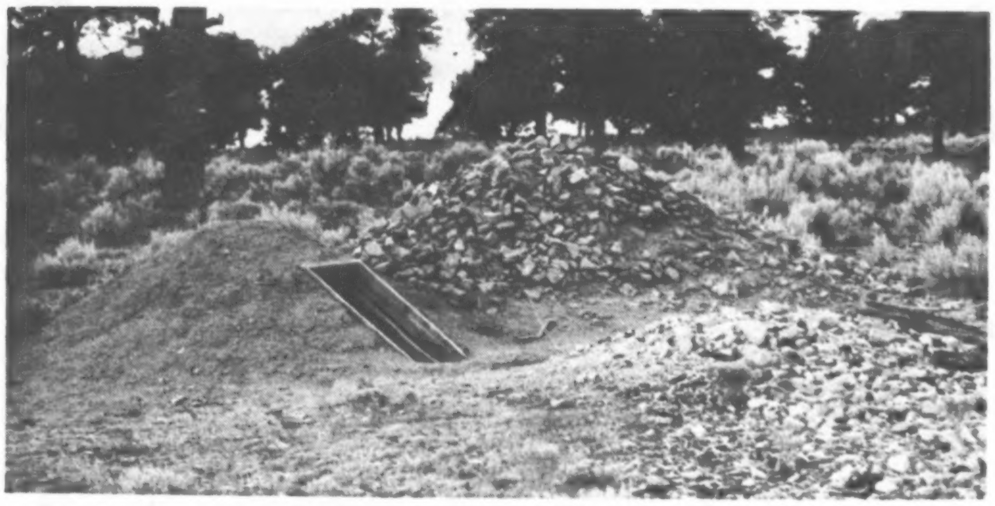
When death occurs in a wagon or vehicle, it is not destroyed, but is purified ("whitened") by a ceremony involving the smoking of the vehicle. Medicine bags and other objects which are not to be destroyed, but which were closely associated with the deceased, are similarly purified and retained by family members.

Infants killed by lightning are sometimes "buried" in trees instead of in graves, crevices or other usual places of interment.

***See 'An Ethnologic Dictionary of the Navajo Language," by the Franciscan Fathers, St. Michaels, Arizona; pub. 1910, 1929.



A "Chindi" hogan - i.e., a hogan which has been abandoned and demolished following a death which occurred inside it.



A Navajo sweathouse. Sweatbaths are taken for purposes of ceremonial purification as well as for purposes of personal cleanliness. In the waterless reaches of the Reservation area other types of bathing are often not possible.

In modern times, death and burial customs have undergone such change that generalizations regarding this phase of Navajo life are no longer possible. Friends and relatives of a deceased person, including old folks reared in the traditional culture, are frequently to be seen at church or other public funerals where they view the corpse and join the procession to the place of interment. Although they do not function as burial attendants, even medicine men are to be found in attendance at funerals. They are not thereafter asked to perform ceremonies until they have been purified by an appropriate "Evil-Way" ceremony, but their presence is not unusual in modern times, and their professional standing is not destroyed. At the same time in remote areas of the Navajo Country, strictly traditional practices are still followed, and those with a strictly traditional point of view usually do not attend funerals, but remain at home.

In many instances, the four-day mourning period is still observed following burial, even though a funeral parlor or church officiated. In some cases, the requirements of modern living have led to reduction of this period to two days following burial.

In brief, there is great diversity among the members of the Tribe at present with regard to death and burial customs, as well as every other aspect of life, although the fear of contact with the dead is still strong, even amonq otherwise acculturated members****.

7. Navajo Cultural Values and the Code of Ethics.[18]

The system of cultural values and, by implication, the basic precepts of the code of ethics that characterize traditional Navajo society, are well summarized by Albert[18] in the statement that "to belong to a large and amiable family, to know how to get along well with others, to have good fields and large flocks, to be strong and healthy, to know how to keep and increase what one has, to work and to enjoy oneself, to know how to fend off the dangers that beset man, to have nice things and to be able to create beautiful objects and preserve harmonious relations with men and the powers that control the world, and at last to grow into wisdom and dignity in old age—this is the lot of the fortunate, the reward of those who live as the Old People taught, the hope of those who wish for a better life than they have."

As we pointed out in describing Navajo religion, a primary concern of Man is the maintenance of order, harmony and balance between himself and the supernatural world by means of knowledge, ceremonial or practical, acquired and utilized to ward off evil (prevent disorder) or to exorcise evil (reestablish order). Religion is concerned with **this** life—not with preparation for an afterlife, and the code of ethics governing the behaviour of men within the framework of traditional Navajo society is geared to the parallel attainment of harmony and order in human inter-relationships as a primary value.

Albert[19] lists knowledge, family, possessions, enjoyment and health as focal values of the Navajo group she studied (the Ramah Navajos), and these are no doubt shared, as a generalization, by the remainder of The People so far as the traditional society is concerned.

****The Chapter entitled "Mortuary Customs," pp. 453-456, in An Ethnologic Dictionary of the Navajo Language, **op. cit.***** provides an excellent account of burial customs as observed by the Franciscan Fathers a half century ago. Likewise, the chapter entitled "Death and Burial," contained in Social Life of the Navajo Indians, by Gladys Reichard, Vol. VII, Columbia University Contributions to Anthropology, publ. 1928 by Columbia University Press, offers observations with reference to a period of a generation past

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(18) This section draws freely on Dr. Clyde Kluckhohn's essay entitled "Navajo Morals," published by the Philosophical Library Inc. in the ENCYCLOPEDIA OF MORALS, and upon Dr. Ethel M. Albert's "The Classification of Values: A Method and Illustration," American Anthropologist, Vol. 58, April 1956. The information for both sources in turn derived from The Comparative Study of Values in Five Cultures Project of the Laboratory of Social Relations, Harvard University, supported by the Rockefeller Foundation, Social Science Division. See also "The Structure of a Moral Code," by John Ladd, publ. 1957, Harvard University Press.

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(19) Op. Cit. (18).

The acquisition of knowledge is essential to the attainment and maintenance of order and harmony, whether between men in society, or between Man and the supernatural world. In his human relationships Man must learn to be a good kinsman and neighbor, one who practices the golden rule, if a harmonious relationship is to prevail. He must be willing to cheertully discharge his responsibilities toward family, immediate relatives, and fellow clansmen, helping them in every manner possible and necessary when asked to do so, whether it be the provision of transportation to a hospital, the proffer of hospitality, or assistance with a ceremonial and he may expect like treatment in turn when the need arises. He should, idealistically, extend his generosity, courtesy and helpfulness beyond immediate family, kin and clan relatives to include friends and fellow tribesmen.

In **our** religious system, the code of ethics governing human relationships and behaviour is primarily theological, and obedience to divine injunctions against forbidden thoughts or deeds (sin) is an aspect of preparation for life after death. Certain crimes and other proscribed acts are conceived as wrongs, not only toward society, but also against God; as such, they constitute disobedience to divine mandate, and potentially subject the offender to future punishment or loss of immortality.

In contradistinction, the traditional Navajo conceives of crime and wrong-doing as actions producing, or capable of producing, disharmony within society; situations which must be averted or remedied by appropriate action to prevent chaos in human relationships. Observance of taboos can preclude certain types of disharmonious relationships between Man and the supernatural world, and proper ceremonies can restore harmony in this connection when disrupted. Similarly, observance of the proper modes of behaviour toward one's fellow man can preclude loss of harmony in human relationships, and certain remedial actions can restore harmony in this respect if it is disrupted. Thus, when one wrongs a fellow man by theft, injury to his person or property, rape, murder, adultery or similar acts, he destroys the harmonious relationship that should exist, and he must placate the wronged person through restoration of goods, or appropriate payment.

As Reichard observes, ethics, in Navajo life, is empirical rather than theoretical or theological. Crime and wrongdoing are social problems, and they are not conceived as acts of disobedience to divine mandate.

Many actions denounced as unequivocally wrong in **our** Society, may be intrinsically good **or** bad from the Navajo viewpoint, depending upon effect. Thus lying may be good if it results in good and does not disrupt harmony; it may be bad if its effect is essentially bad, contributiong to disorder. Other actions, as adultery for example, are fundamentally bad because they infringe upon another's property rights and frequently create disharmony. Incest and witchcraft are unequivocally evil because their effects are never good.

Man should live and conduct himself in a manner assuring prosperity, personal enjoyment and good health, ends for the achievement of which he must be industrious, generous, courteous, just, responsible, and above all moderate in his habits and actions. Excess, whether in eating, drinking, sex, or the attainment of wealth, may result in imbalance and misery, of which disease, unpleasant human relationships and disharmony are but observed symptoms.

In traditional Navajo society children are taught by their elders, either through example or by injunction at the time a wrong action is committed. Many of the basic precepts and injunctions against behaviour of types that, on the basis of experience, usually result in disharmony, are contained in the legends, often in the form of fables in which a "moral" is set forth, and of which the following is an example:

> Horned Toad was an industrious, highly respected and well behaved person who, by dint of hard work, had built a fine house and farm for himself. One day he was busy near his hogan when he saw Coyote approaching. Being a well mannered person Horned Toad pretended not to see the approaching visitor and went about his work as before. When Coyote arrived and greeted him, Horned Toad returned the greeting politely. Then Coyote brazenly ran all about Horned Toad's field, trampling the young corn; he sniffed about in the hogan, and otherwise behaved in an unbecoming manner. Finally, Coyote stopped and announced that he would eat Horned Toad up and take over his farm. So saying, Coyote grabbed Horned Toad and swallowed him. Then he lay down in the cool interior of the hogan to nap. It was not long before he heard someone say "sh." Disturbed, Coyote looked about, but saw no one and lay back down to resume his nap. Four times he heard and investigated the sound, before he realized that it came from within himself. He asked who had spoken, and Horned Toad said it was he. Horned Toad then proceeded to wander about inside Coyote pulling on his organs. Coyote begged for mercy, but Horned Toad found his wind pipe and choked him to death. Then he crawled back out, saying "That is what happens to people who take advantage of the weak." The moral of this story is obvious.

However, Man, like the deities, is composite—he combines good and evil motivations in his makeup. Universal harmony is an ideal, theoretically attainable by proper behaviour and procedure whether between men themselves or between Man and the supernatural world, but it is a state that fails to obtain in actuality. Therefore, the availability of a remedial system is necessary, whether in the form of ceremonial exorcism or in that of payment for wrongs committed against fellow men.

Today, the code of ethics and the cultural values of traditional Navajo society, like the religion, are undergoing rapid change under the growing impact of non-Navajo society and institutions. The framework remains, but it is rapidly disintegrating in the face of a new order and a new way of life, and the traditional pattern is no longer as valid as a generalization as it was even twenty years ago. Restoration, or payment of goods and money for wrongs committed against fellow men is still a proper and common recourse under some circumstances to restore social harmony, but the white man's court and laws are rapidly replacing the traditional Navajo way, with incarceration; fines paid, not to the aggrieved but to an impersonal court, or other forms of punishment substituted as the proper avenue for the reestablishment of harmony and order. Understandably, to the mind of the Navajo reared in traditional society, the jailing or fining of a culprit guilty of theft or assault, in lieu of restoration of property or payment to the aggrieved for the injury sustained is incomprehensible. Such a course does not always restore harmony, but actually often has an opposite observed effect.

In the complex Navajo society of today, still in a process of revolutionary change, individuals continue to follow many of the lines of traditional training, sometimes only because they do not want to risk censure and ostracism. Thus they may continue to recognize traditional responsibilities toward family and kinfolk, extending hospitality toward relatives, generously lending money and equipment and the like. However, the exigencies of modern living frequently place limitations on such traditional practices and, in fact, some employed Navajos sometimes seek to escape traditional responsibilities by insisting on working in locations remote from their home areas to thus place themselves beyond the reach of relatives. Outside the Reservation, landlords often take a dim view of occupancy of rented houses by excessive numbers of people, especially if the latter do not form part of the immediate family to which the housing was rented. The modern Navajo is often caught between two opposing forces, one in which he is impelled to discharge the responsibilities expected of him as a Navajo, to thus retain his identity as a member of the group; the other in which he is under pressure by non-Navajos to live independently of his extended family and discontinue his tribal identity. It **can** be a hard choice to make, and a middle course is not easy.

Finally, against the background of Navajo cultural values—industriousness, accumulation and care of property, avoidance of excess, generosity, enjoyment of life, and a constant striving for harmony and order in all relationships whether human or universal—it is not difficult to imagine the impact upon Navajo society of such profoundly disturbing tragedies as the Fort Sumner experience, or more recently the livestock reduction program and the sudden collapse of the traditional livestock economy. If the Navajo people are indeed progressive and adaptable to changing conditions, those attributes may well stem directly from the compulsive desire, conscious or subconscious, to restore lost harmony and order through a new approach adapted to changed conditions of life. Acceptance of education, seasonal employment, industrialization, relocation and the like are new avenues leading to the reestablishment of harmony and social order—perhaps, indeed, even peyotism may be viewed as a new approach to the same goals.

NAVAJO WEDDING CEREMONY

(As related by Albert George (Chic) Sandoval, Lukachukai, Arizona)

When the father of a Navajo boy begins to notice that the boy is taking an interest in social affairs, such as dances, he thinks it is about time the boy married. At the dances the boy meets many girls. Some of the girls make a practice of going to the dances for the purpose of making money and the father believes that to keep his boy out of trouble he should see that he is married. The boy is generally 15 to 20 years of age. The father begins to survey his surroundings to see if he can locate a likely girl of the proper age—usually from 14 to 16. He consults his son and if the boy says he is ready to marry, the father continues to look around for a girl. Sometimes there is no desirable girl near their home and it becomes necessary to go some distance. The father, when he knows of no family himself, makes inquiries among his relatives and friends.

If the father hasn't the proper initiative, the boy's maternal uncle (his mother's brother) usually handles the matter for him. The boy belongs to his mother's clan and therefore looks up to his uncles on his mother's side.

When the girl has been decided upon the father (or uncle) consults the near relatives about the matter. He tells who the girl is and asks for any comments or objections. If there are no objections it is decided who shall go to the prospective bride's family to ask for her hand in marriage. Usually the father of the boy goes, or it may be his uncle, and sometimes his mother. After it has been decided who is to go, the matter of dowry is discussed. In the old days the offer was not more than twelve horses. Nowadays, due to the scarcity of horses, other things of value are substituted. It may be cattle or jewelry or whatever they possess. When horses were offered it was decided who would put up the horses. The father and other relatives of the boy contributed.

Before the delegated person leaves to consult the bride's family, the boy is asked if he has any objection—if not, they proceed with the plan. In most instances he has never seen the girl. When the representative arrives at the girl's home he states his business to the mother or father. He tells the girl's family about the boy and answers their objections, if any. The mother of the girl generally has the final word as to whether they accept the offer. She may, however, leave it up to the father, grandfather or any family member whom they respect. The boy's representative makes the offer of the horses (or other things of value) and he is asked if the horses are fat or scrub, broken or unbroken female or male, etc. Sometimes they call in the girl to see what she has to say, but not always. The girl's folks set the date for the marriage, which is always an odd number of days away—seven, eleven, thirteen, etc. The boy's representative thanks the family and returns to make his report.

The girl's family notifies friends and relatives of the coming event and asks that food be brought in to help feed the expected guests. The bridegroom's family begins to prepare itself as the time approaches. They assemble the number of horses agreed upon.

The girl's family usually builds a separate hogan for the wedding. On the morning of the wedding day the girl is bathed and cleaned up in her best clothes, the food is prepared in the cook shack, and all is put in readiness for the guests who are to arrive. The bridegroom is likewise getting dressed in his best clothes and his folks are preparing for the trip. The bridegroom's party leaves home so that they will arrive at the home of the bride at sundown. When they arrive they put the twelve horses in the corral that has been prepared for them, if that be the dowry. The bride's folks examine the stock to see if it is what was agreed upon. Very rarely is it not accepted, but in that case the wedding is off.

The bridegroom and party ride to the new hogan. The entrance is to the east, and the fire in the hogan is in the center. When the bridegroom enters, carrying his saddle, he always goes around the fire "sunwise"—around the south side of the fire to his place in the rear of the hogan opposite the entrance. The rest of his party take their places, usually on the north of the bridegroom.

Some member of the bride's family is designated to look after the horses brought by the bridegroom's family. Usually one of the fat horses is killed and the meat passed out to the guests, and the others are distributed to the bride's relatives. During this time the meal is being cooked —meat and bread are being prepared in the cook shack. The mother of the bride is preparing unseasoned corn mush. No cedar ashes or other seasoning is added. She cooks it in a small clay pot, and when ready the mush is put into a Piute basket. A wicker jug is filled with water and a gourd ladle is placed beside it. A special dish of meat is prepared for the bridal couple, also. All the food is dished up now and is about to be taken into the hogan. A master of ceremonies leads the procession, carrying the water jug and ladle. He must also have a bag of corn pollen. The bride follows him, carrying the basket of mush. Others have volunteered to help carry the other food and fall in line in back of the bride. The mother usually remains behind. They enter the hogan and go to the south of the fire. Sometimes the bride, when she starts to the hogan with the basket of mush, wears an extra shawl, which she drops from her shoulders as she enters the hogan. Generally this is when the two families have known each other for many years. The shawl is taken by a wedding guest. The bride sets the basket of mush in front of the bridegroom and takes her place at his right. The master of ceremonies takes his place by the couple (he is carrying the water jug). The food is placed on the floor of the hogan around the fire.

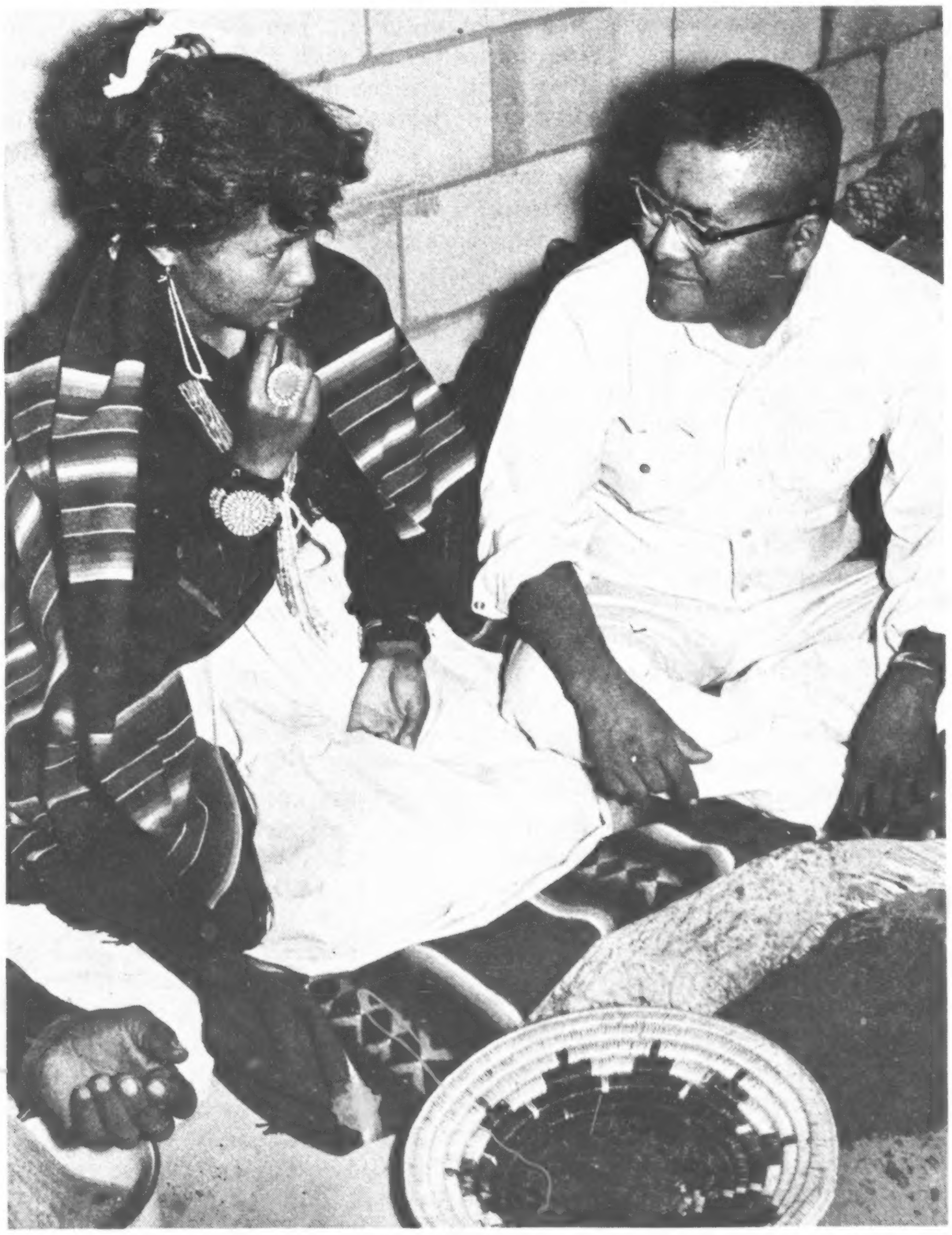
The master of ceremonies sets the jug in front of the bridal couple, and gives the gourd ladle to the bride. He pours water into it and tells her to pour water onto the bridegroom's hands. After he has washed his hands the bride gives him the gourd ladle and he holds it while the master of ceremonies pours water into it. The bridegroom in turn pours the water onto the bride's hands as she washes them. The master of ceremonies then takes out his bag of corn pollen. The basket of mush is placed so that the termination of the weaving faces the east toward the fire. He takes a pinch of pollen and sprinkles it from east to west over the basket on the mush—then from south to north. In many of the ceremonies, additional pollen is added by making a circle around the basket clockwise. Then the master of ceremonies asks if there is any objection to turning the basket halfway around, and there usually are objections. When there are too many protests he doesn't turn it. The objection usually is that if he turns the basket he spins the minds of the couple and makes it so they cannot think straight.

The master of ceremonies then instructs the groom to take a pinch of this corn mush at the edge where the corn pollen ends at the east, with his thumb and first two fingers. He puts it in his mouth. The bride follows suit. The groom then takes some at the south side, the west, and the north, then at the center at the crossing of the corn pollen. The bride in the same fashion eats the mush each time after the groom. When that ceremony is completed the master of ceremonies tells everyone to eat. The basket used in the ceremony is usually taken by a member of the bridegroom's party.

When all have eaten, one of the visiting party gives a talk, thanking the people for the good food and the fine reception. He thanks the family for their fine daughter and then instructs the couple. He usually tells the bridegroom that his first duty is to stay in the hogan for four nights, and after that he is more or less free to come and go. He tells him he was brought here to help these people the best he can. He should raise children and support them to the best of his ability and help his wife's family any way he can until such time as he has a separate family. He must never abuse his wife or be unfaithful.

When this speech is finished, someone from the bride's family responds, beginning the same way by thanking the family for the young man. He advises the bride. The speakers alternate until not more than two from each side have spoken. Nowadays the talks are not limited to four, and not only the friends and relatives speak, but often police officers and other interested persons participate.

If the distance to the boy's home is too great, the party remains over night. As many as can, sleep in the hogan and if it is summertime they may sleep outside. If the party has a comparatively short distance to travel they all return to their homes the same night. The bride's family usually prepares extra food—perhaps bread and a sack of boiled mutton —for the boy's family to take home with them.



A Navajo wedding ceremony. (Photo by courtesy of Cliff Gedekoh.)

NAVAJO PERSONAL NAMES

The personal name did not formerly function as an instrument for general identification purposes among the Navajo as it does among non-Navajos. Shortly after birth, at the time a baby first smiled, a close relative who had been to war fashioned a war name for the child—usually one reflecting some wartime experience of the name-giver. The name thus given became the personal property of the possessor, and he or she would not reveal it to others without cause or trust because of its potential use in working witchcraft against the person thus identified. It was used ceremonially and was known within the family group. The custom of giving war names is still observed in Navajo society, and such names are nowadays frequently used by women requiring identification and possessing no other name. They are not often used by men, however.

The war names are somewhat stereotyped in format. Those used for males are frequently phrases based on the verbs **run, go** or **raid,** wherein a warrior or chief is described as **running, going** or **raiding** in various situations with relation to the enemy. Thus, for example, He Ascended In Anger, He Is Running Along Amongst The Warriors, He Will Become A Chief, The Chief Is Running From War, etc. Female war names are usually based on the verb **raid,** often in conjunction with nouns meaning **war** or **warrior girl.** Thus, She Is Going To Lead On The Raid, They Came Raiding Back Up Behind Each Other, She Raided In A Circle, etc.

Children are often identified by a sobriquet or "pet name" describing some childhood characteristic. Thus, such designations as Big Baby, Big Boy, Gray Girl, Laughing Boy, Tall Boy, Pretty Boy, and the like.

Likewise, as an adult, one is commonly identified by a descriptive name based on geneological relationship to someone else, clan affiliation, occupation, some personal peculiarity or other distinguishing characteristic. Thus, for example, The Nephew of Speckled Horse, Tall Salt Clansman, Silversmith, The One Who Cut His Hair, Long Neck, Big Moustache, Worrier, Umbrella Woman, Plump Woman, Deaf Woman, etc.

With the advent of Europeans, the possesion of a family and a given name became imperative, especially as intercourse betwen the two peoples increased and as Navajo children began to enter school. In the pre-school era, many Navajos in frequent contact with Spanish speaking people took Spanish names, many of which remain to this day in the eastern part of the Navajo country. After the establishment of schools, teachers gave names to their un-named pupils, drawing them from classical literature and the Bible, or naming the children after famous personages. Thus, we find Abe Lincoln, John Pershing, General Miles, etc.

In some instances teachers attempted to anglicize words they took to be family names. Inquiring about the name of a new pupil, the teacher might find him identified as Hastiin Atsidi Biye* (Son of the Smithy). Taking the Navajo word bìye', his son, to be the family name the teacher might anglicize it to Begay, a name which has become extremely common on the Reservation. Similarly, the sobriquet Hastiin Yazhi (Little Man) might be taken to be composed of Hastiin as a given name and Yazhi as the family name, whereas Hastiin signifies **man** and Yazhi means **little.** Yazhi, like Begay, has become a very common family name, and both probably owe their usage in this capacity to misunderstanding on the part of the name-givers. Yazhi

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is spelled variously as Yazzi, Yazza, Yazzie, etc. There are many additional family names of this type.

Sometimes Navajo words forming parts of sobriquets were translated into English. Thus, Atsidi may be found both as Atsiddy (Etsiddy) or as Smith; Neez may be found as Nez or as Long, etc.

In some instances adult, non-English speaking Navajos are cursed with ridiculous names given, their meaning unknown to the person named, by somewhat sadistic non-Navajo associates or acquaintances. Among these are such ludicrous designations as Popeye, Angel Whiskers, Trixie Calamity, Big Cigar, Horseherder, Tinhorn, Bogus Check, and some which are unprintable.

Due to the fact that many Navajos either lacked usable personal names or shared the same name with a great many fellow Navajos, the use of census numbers was introduced at the time of the 1928-29 census enumeration. Each person carried on the census roll was assigned a number and given a metal tag on which the number was stamped. Thus, if there were 100 or more Tom Yazzies on the Reservation they could be readily distinguished when necessary. The census number system is still in use.

In former years, and to some extent at present, Navajos have been prone to change their names at will, to the confusion of persons with whom they did business. In addition, many Navajos do not possess or use the same family name as their parents and siblings, although name changing is gradually becoming a less serious problem, and uniformity in family name is becoming more common with education and acculturation.

HISTORICAL

Navajo tradition, the Genesis of The People, traces their beginning to the underworlds from which the prototypical forms emerged through "hajiinai," an exit to this world the location of which is placed somewhere north of the present Reservation area. Legend recounts the origin and prehistoric wanderings of the original clans and the growth of the Tribe as the incorporation of non-Navajo peoples gave rise to new clans.

Recorded history for the Tribe begins with a Spanish document dating from 1626[1] recounting an early missionary encounter with Navajos, but only archaeological and other research will serve to measure the length of time this Athapascan speaking group has been in the Southwestern part of the United States. The mass of archaeological work completed by Mr. Richard Van Valkenburg in connection with the Navajo Claims case will no doubt throw a great deal of light on Navajo pre-history,[2] but until that material has

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(1) Fr. Geronimo de Barate Salmeron, "Relation of Events in California and New Mexico from 1538-1626."

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(2) Applying to the Apachean and other Athabascan ethno-linguistic groups the lexico-statistic dating method (known as glottochronology) developed, and described in 1952, by Morris Swadesh, Dr. Harry Hoijer places the bulk of the divergences of the Apachean from the Northern Athabascan groups at about 700-1000 years ago. Dr. Hoijer's computations would place the movement of the Apachean speaking groups southward at a period about 1000 years ago, a process apparently completed about 600 years ago. If the dating method used is reasonably accurate in its application to the Apachean groups (including the Navajo), the date of their entry into the American Southwest would fall in the mid-fourteenth century___or roughly a few years prior to Columbus' voyage of discovery. (See **The Chronology of the Athabascan Languages** by Harry Hoijer, International Journal of American Linguistics, Vol. 22, No. 4, October, 1956.)

In the course of Navajo Tribal Claims research, the late Richard Van Valkenburg and his staff obtained tree ring specimens from the timbers of many ancient hogans. Although laboratory and field work is incomplete, the preponderance of early hogan sites date from the 17th century, with a few samples dating from the mid-16th century. These facts would seem to support linguistic evidence which points to the probability that the Apachean groups are relative newcomers to the Southwest.

been studied and interpreted we can only assume that the Navajo have lived in the American Southwest for a number of centuries.

On the basis of available knowledge, before the advent of European settlers, the Navajo lived by gathering wild seeds, berries and edible plants, by agriculture,[3] by hunting and by raiding their Pueblo neighbors.

The Franciscan Friars who came with the Spanish Conquistadores in search of the Seven Cities of Cibola apparently introduced sheep to the Pueblo Indians. In 1581 Padre Luis presented a few sheep to the Zuni, and a few years later the Pueblos were well on their way toward the adoption of sheep raising as an aspect of their economy. In view of their raids and other contacts with Pueblos, the Navajo must have been introduced to livestock very soon after the advent of the Spaniards.

It was no doubt some time in the 16th or early 17th century that the introduction of the horse and the sheep into Navajo culture set in motion the trend of events that revolutionized Navajo life. The horse not only provided mobility, but greatly expanded opportunities for hunting, raiding and food-gathering. The sheep (and goat) provided a stable food supply and, although agriculture remained an important source of food, the Navajo rapidly underwent change to become basically a pastoral society.

Although not historically nomadic in the sense of aimless, continued wandering, the Navajo people have long been a mobile group, shifting residence from season to season in accordance with the climatic fluctuations which control food supply and forage. Thus, many people living near the mountains still maintain a shiink'eh (summer place) at the higher elevations and a haik'eh (winter place) at lower elevations or on the plains. Family movements were (and are) generally confined to well defined areas of seasonal residence and, during the planting and growing season all or a part of the family usually remained in the locality where they made their fields.

The acquisition of livestock not only changed the way of life of the Tribe from a somewhat precarious hunting-agricultural economy in which there was little opportunity or incentive to accumulate wealth, to a pastoral economy in which an adequate food supply was virtually assured, but also the advent of livestock introduced the opportunity to accumulate property. Many early Navajos became wealthy stock owners, and were commonly called the "Ricos" by the Spanish Colonials.

The livestock represented a valuable commercial resource, and laid the foundation for the subsequent growth of trade culminating in the pastoral-barter economy so characteristic of Navajo culture a few decades past, and providing a stepping stone to the modern wage-economy in which livestock is gradually fading into the background to be replaced by a new value in the form of dollars.

It was the mobility of the Navajo that brought them into conflict with the Spanish-Mexican Colonials, and later with the United States Government. Never town-dwellers like the Pueblos, the advent of livestock had encouraged ever wider dispersion of Navajo families to assure sufficient forage for their increasing herds. They raided the settlements and vanished in the face of punitive expeditions vainly sent after them and, as the colonial population grew in the Rio Grande Valley, the Navajo expanded westward,

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(3) See Hill, W. W., "The Agricultural and Hunting Methods of the Navajo Indians," U. of New Mex. Press, 1935.

further and further into the wild broken country where they could find necessary range and elude their enemies.

The Spanish-Mexican period was one of almost constant warfare in which both the Navajo and the Spaniard took slaves and booty. Thus, writing in 1865, General James H. Carleton[4] said, "With the exception of one or two intervals of a few years each, there has been a state of hostility between the people of New Mexico and the Navajo Indians. Even in these intervals occasional forays were made into the settlements to capture sheep and cattle. The Mexicans would kill some of the Indians and capture some of the women and children and make slaves of them. But in times when open hostilities existed these efforts were increased on each side to capture stock, women and children, so that the country was kept in a continual state of commotion. This was the state of things when we acquired the territory from Mexico."

Writing in the same year Chief Justice Kirby Benedict observed that, "The Navajos were in the habit of making forays upon the ranches and settlements, stealing, robbing and killing and carrying away captives; the finding of herds and driving off sheep and other animals was carried on to a very ruinous extent; the killing of persons did not seem so much the object of their warfare as an incidental means of succeeding in other depredations. Sometimes, however, barbarous vengeance was exhibited and a thirst for blood. They carried away captives, but I cannot now give any accurate idea of number."

Another observer of the same period (1865), Dr. Louis Kennon wrote, "I think the Navajos have been the most abused people on the continent, and that in all hostilities the Mexicans have always taken the initiative with but one exception that I know of. When I first came here the Navajos were at peace, and had been for a long time. There was a pressure brought to bear—to make war on the Navajo. General Garland was commander of the Department at that time, and if you asked the Mexicans any reason for making war, they would give no other reason but that the Navajos had a great many sheep and horses and a great many children—."

Speaking of the Navajos taken as slaves by the Mexicans, Chief Justice Kirby Benedict went on to say, "There are in the Territory a large number of Indians, principally females (women and children), who have been taken by force or stealth, or purchases, who have been among the various wild tribes of New Mexico or those adjoining. Of these a large proportion are Navajos. It is notorious that natives of this country have sometimes made captives of the Navajo women and children when opportunities presented themselves; the custom has long existed here of buying persons, especially women and children; the tribes themselves have carried on this kind of traffic. Destitute orphans are sometimes sold by their remote relations; poor parents also make traffic of their children. The Indian persons obtained in any of the modes mentioned are treated by those who claim to own them as their servants and slaves. They are bought and sold by and between the inhabitants at a price as much as is a horse or an ox. The prices have lately ranged very high. A likely girl not more than eight years old, healthy and intelligent, would be held at a value of four hundred dollars or more. When they grow to womanhood they sometimes become mothers from the natives of the land, with or without marriage. Their children, however, by the custom of the country, are not regarded as property which may be bought or sold as have been their mothers. They grow up and are treated as having the rights of citizens. They marry and blend with the general populations."

Speaking of slavery, Dr. Louis Kennon wrote "I think the number of captive Navajo Indians held as slaves to be underestimated. I think there are from five to six thousand. I know of no family which can raise one hundred and fifty dollars but what purchases a Navajo slave, and many families own for or five, the trade in them being as regular as the trade in pigs or sheep. Previous to the war their price was from seventy five to one hundred dollars, but now are worth about four hundred dollars. But the other day some Mexican Indians from Chihuahua were for sale in Santa Fe. I have been conversant with the institution of slavery in Georgia, but the system is worse here, there being no obligation to care for the slave when he becomes old or worthless."

In 1846 President James K. Polk declared war on Mexico and three months later General Stephen W. Kearney entered Santa Fe to proclaim the fact that the people of the Territories of New Mexico and Arizona were thereafter to consider themselves citizens of the United States. The Americans were aware of the long history of warfare in the newly acquired territories and intended to put an end to it: They concluded treaties of peace with the Navajo[5] and other Indian groups and, in 1851, established a fort at Fort Defiance to assure control of the Navajos.

No serious warfare broke out between the Navajo and the American troops until 1858, when an altercation growing out of the presence of Navajo horses in the meadow reserved for horses belonging to the military, and the death of a negro servant, precipitated hostilities. An unratified treaty of peace was concluded in 1858 which, incidentally, was the first American Treaty to define the eastern boundary of the Navajo Country, but hostilities continued, culminating in a large scale but unsuccessful attack on Fort Defiance by Navajos on April 30, 1860. In 1861 the Civil War broke out and the American troops were withdrawn from Fort Defiance, thus freeing the Navajos to raid the settlements and surrounding pueblos with impunity.

In 1863, General James Carleton assumed the responsibility for literally rounding up the whole tribe, the intention being to drive the Navajo to a reservation set aside for them at Fort Sumner, New Mexico, where they would be taught a sedentary, agricultural life patterned after that of the Pueblo Indians.

Colonel Kit Carson, a well known "mountain-man" who had spent many years among the Indians in the Southwest and elsewhere, and who knew the country intimately; was placed in charge of the round-up operation, carried out during 1863-64. Applying a scorched earth policy Carson starved the Navajos into submission, and drove them into a four year exile at Fort Sumner.

Colonel Carson reviewed the Navajo War in a deposition recorded subsequently in a document entitled "Condition of the Indian Tribes—Report of the Joint Special Committee, Appointed under Joint Resolution of March 3, 1865, with an Appendix," (published by the Government Printing Office in 1868), which states in part, "I know that even before the acquisition of New Mexico there had about always existed an hereditary warfare between the Navajos and Mexicans; forays were made into each other's country, and stock, women, and children stolen. Since the acquisition, the same state has existed.. we would hardly get back from fighting and making peace with them before they would be at war again. I consider the Reservation system as the only one to be adopted for them. If they were sent back to their own country tomorrow, it would not be a month before hostilities would commence again. There is a part of the Navajoes, the wealthy, who wish to live in peace; the poorer class are in the majority, and they have no chiefs who can control them. When I campaigned against them eight months I found them scattered over a country several hundred miles in extent. There is no suitable place in their own country—and I have been all over it—where more than two thousand could be placed. If located in different places, it would not be long before they and the Mexicans would be at war. If they were scattered on different locations I hardly think any number of troops could keep them on their reservations. The mountains they live in in the Navajo country cannot be penetrated by troops. There are canons in their country thirty miles in length, with walls a thousand feet high, and when at war it is impossible for troops to pass through these canons, in which they hide and cultivate the ground. In the main Canon de Chelly they had some two or three thousand peach trees, which were mostly destroyed by my troops. Colonel Sumner, in the fall of 1851, went into the Canon de Chelly with several thousand men and two pieces of artillery; he got into the canon some eight or ten miles, but had to retreat out of it at night. In the walls of the canon they have regular houses built in the crevices, from which they fire and roll down huge stones on an enemy. They have regular fortifications, averaging from one to two hundred feet from the bottom, with portholes for firing. No small-arms can injure them, and artillery cannot be used. In one of these crevices I found a two-story house. I regard these canons as impregnable. General Canby entered this canon, but retreated out the next morning. When I captured the Navajoes I first destroyed their crops, and harassed them until the snow fell very deep in the canons, taking some prisoners occasionally. I think it was about the 6th of January, after the snow fell, that I started. Five thousand soldiers would probably keep them on reservations in their own country. The Navajoes had a good many small herds when I went there. I took twelve hundred sheep from them at one time, and smaller lots at different times. The volunteers were allowed one dollar per head for all sheep and goats taken, which were turned over to the commissary. I think General Carleton gave the order as an encouragement to the troops. I think from fifteen hundred to two thousand could subsist themselves in the Valley de Chelly. At this point it took me and three hundred men most of one day to destroy a field of corn. I think probably fifteen hundred could subsist on the northeastern slope of the Tunacha mountain. I know of no other place near by where any considerable number could subsist themselves. While I was in the country there was continual thieving carried on between the Navajoes and Mexicans. Some Mexicans now object to the settlement of the Navajoes at the Bosque, because they cannot prey on them as formerly. I am of the opinion that, in consequence of the military campaign and the destruction of their crops, they were forced to come in."

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[5] Treaty of November 11, 1846; an ineffective treaty concluded in Santa Fe in 1848; a treaty of July 9, 1849.

The Fort Sumner experiment failed miserably. Disease, crop failure, lack of firewood and failure to receive necessary supplies combined with other factors to make the "exile" a nightmare for the 8,474 Navajo men, women and children reportedly at the Fort Sumner Reservation on June 27, 1865.[6] The proportion of the Navajo population which was taken captive is uncertain. On April 24, 1864[7] General Carleton wrote to the effect that "A copy of an official letter from Colonel Christopher Carson, 1st Cavalry, N. M. Volunteers, dated the 10th instant. In this letter the Colonel expresses his convictions that we have not yet got one-half of the Tribe of Navajoes." General Carleton differed with Carson, expressing the view that "from all I can learn, I think the Colonel over-estimates the number of those not come in. In my belief the Ricos not yet surrendered, but who it is said, will soon come, do not number over two thousand. We have now, in round numbers, six thousand, which would make the whole number of the nation to be eight thousand—a full estimate, I think."

The actual proportion of Navajoes captured probably lies somewhere between the estimates given by General Carleton and Colonel Carson and the actual Navajo population in Fort Sumner times was probably somewhere between 9,000 and 12,000.

In 1868, recognizing the Fort Sumner experiment as a failure and acceding to Navajo entreaties, the United States Government concluded a treaty with the tribe whereby The People were returned to a 3½ million acre fraction of the country they previously held. A total of 35,000 sheep and goats were purchased by the government and issued to the returned captives and the latter dispersed to once again occupy the old homeland, much of which now lay outside the boundaries of the Treaty Reservation, a fact which brought them into conflict with settlers, the railroads and other interests in subsequent years. The Treaty Reservation was too small for the rapidly increasing population heavily dependent on a livestock economy and, through a series of Executive Orders and Acts of Congress extending from 1878-1934, the Reservation area was increased to approximately 15,000,000 acres. However, during the period 1868-1938 the population had grown from a maximum of 12,000 to 40,000, and the expansion of the land base had never kept pace with population growth.

The Navajo country, the people, and their problems at the beginning of the post-treaty period were charmingly described by J. H. Beadle who spent five years traveling through the western territories, including Oklahoma Wyoming, Utah, California, Arizona and New Mexico, during the period 1868-1873. He visited Fort Defiance and other parts of the Navajo Country in 1871, just three years after the return of the People from Fort Sumner, and described his visit in the following terms:[8]

"The dominant race of this section are the Navajoes, who roam over a country 300 miles from east to west and nearly 200 from north to south.

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(6) Deposition of Captain H. B. Bristol, Condition of Indian Tribes, Report of Joint Special Committee, publ. 1867 GPO. "Am Captain in the 5th United States Infantry, and stationed at this post; I have been here since the 22d of May, 1863; I have been part of the time commanding officer of the post, and acting military superintendent of the Navajo Indians. When I came here there was but one Navajo Indian here. He was taken from a Mexican who offered him for sale for ten dollars; so that all of them have been brought here since I came here. They came at different times. Total number brought here, 8,474; of these there were men, 2,325; of women, 2,710; of children, 3,164; infants at the breast, 275. At the last count, on the 30th of April last, there were present 7,169. The difference in numbers is accounted for by deaths not reported, and absence of those who were hunting. Some others reside on the Reservation, some twenty to twenty-five miles from the post, and were not present at the count, herding their stock. Some of them are owners of considerable herds of horses and sheep and a few mules and goats. The number of deaths reported among the Navajoes from all causes, so far as it has come to our knowledge, is two hundred and sixteen since the 1st of February, 1864."

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(7) Op. Cit., p. 180.

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(8) Beadle, J. H. Five Years in the Territories, Chapts. 15-16.

They are a most interesting race of barbarians, though savage in war and somewhat inclined to thieving. They and the Apaches have been at war from time immemorial. The Navajoes are splendid speciments of physical humanity—the finest of Indians I ever saw, except, perhaps the Chippewas, of Northen Minnesota. These are the first Indians I have met who have not the stereotyped "Indian face"—the face we have heard described so often, either overcast with a stern and melancholy gravity, or lively only with an uncertain mixture of cunning and ferocity. Their countenances are generally pleasing, even mild and benevolent. They have many young fellows whose faces show the born humorist. Wit, merriment and practical jokes enliven all their gatherings, and, quite contrary to our ideas of Indian character, they laugh loud and heartily at everything amusing. They are quite inquisitive, too, and seem vastly pleased to either see or hear something new. Both men and women work, and are quite industrious until they have accumulated a fair share of property; then they seem content to take things easy. In short they are as much unlike the "Stage Indian," and as much like a tribe of dark Caucausians as it is possible to conceive.

Their handiwork is very ingenious. They make pottery like that of the Pueblos, from whom it is supposed they learned the art. Their blankets are the wonder of all who see them. They are woven by the squaws in a rude frame, and are so compact that water can be carried in them four or five hours before it begins to leak through. One woman was engaged near the Fort in weaving an unusually fine blanket for one of the officers, and though I watched the process for an hour at a time, cannot fully describe it. A large stout beam is fastened firmly to the joists of the hut, or to the limbs of a tree, as they often do all the weaving out-of-doors. From this, by a leather loop at each end, is suspended a "turn stick," about the size of one's wrist. A similar beam below is fastened in the ground or floor, and from it another "turn stick" is suspended by loops. On the two sticks the warp, or "chain" is stretched very tight, the two sets of strands crossing in the middle. This, with two loose sticks dividing the chain and a curved board, looking like a barrel stave with the edges rounded, constitute the entire loom. The squaw sits before this with her balls of yarn for "filling" conveniently arranged, works them through the strands and beats them firmly together with the loose board, running it in between the strands with singular dexterity. The woolen yarn for "filling" is made from their own sheep, generally, and is of three colors, black, white and red from native coloring. Running these together by turns with nimble fingers the squaw brings out on the blanket squares, diamonds, circles and fanciful curves, and flowers of three colors, with a skill which is simply amazing. Two months are required to complete an ordinary blanket, five feet wide and eight long, which sells from $15 to $50.00, according to the style and materials. At the Fort (Wingate), officers who wish an unusually fine article, furnish both "chain" and "filling," but those entirely of Navajo make are very fine. One will outlast a lifetime; and though rolled in the mud, or dobbed with grease for months or years, until every vestige of color seems gone, when washed with the soap weed, (mole cactus), the bright native colors come out as beautiful as ever. They also manufacture, with beads and silk threads obtained from the traders, very beautiful neck ties, ribbons, garters. cuffs and other ornaments. More interesting to me than any of their handicraft, is the unwearying patience they display in all of their work, and their zeal and quickness to learn in everything which may inprove their condition. Surely such a people are capable of civilization.

Officers and Agents universally tell me that Navajoes work along side of any employees they can get, and do full work. They dig ditches and make embankments with great skill, handling the spade as well as any Irishman. The most intelligent of them say it will be no use to import laborers here to work on the railroad; they will learn how to do the work themselves.

Ft. Wingate was established in August, 1868, by the troops who came there that year with the Navajoes. It is nearly on the same site as old Ft. Fautleroy, afterward called Ft. Lyon, which was hastily abandoned in 1862 when the Texans overran New Mexico. When this was built, old Ft. Wingate, 60 miles southeast, was abandoned.

The region has many wild animals. The antelope, black-tailed deer, black bear, big gray wolf, wildcat, grey fox and beaver are found by hunting in the mountains, while the coyote is altogether too common, and even in the Fort my sleep was sometimes disturbed by its long-drawn and melancholy howl. But the game near the post has been greatly thinned out by the Navajoes, and the officers go out some distance to hunt. There must be myriads of some kind of insects, judging from the presence of insect eating birds, such as the woodpecker (two varieties), bluejay, fly-catcher, large raven, blackbird, owl and hawk (several kinds), magpie and rocky mountain bluebird. The officers tell me that during most of the season there are vast flocks of buzzards hovering constantly about the Fort, but at this time they are off in the woods or cliffs hatching.

It is rather curious that there should be such an abundance of animal life in what appears to be such a barren country, and more particularly that there should be so many scavengers (buzzards, etc.) in a dry and cool locality. It may be partially explained by the fact that there is more timber about there than in the mountains generally, and in the timber probably more food for small birds, etc., than one would think from the appearance of the plain.

On the sixth of June, Mr. William Burgess, blacksmith for the Navajo Agency, at Ft. Defiance, Arizona, reached Wingate from that post: and I concluded that was my best chance for company on another stage of my journey. The distance between the posts is just 45 miles, as measured by Lt. Beall's odometer, in 1860; and Defiance is about 3 miles west of the territorial line.

The distance we rode easily in 9 hours, stopping an hour at noon. There is water at but one point on the road, Stinking Springs, sometimes politely called Sheep Springs. Our mules drank of it, under protest, and with many sniffs and contortions of the lip; and I tasted it from curiosity. It appears like a solution of blue dye, and tastes like white oak bark. To some it is a dangerous cathartic, but to most a powerful astringent. We left Wingate with full canteens, and having a delightfully cool day, did not suffer from thirst. Our road wound about to nearly every point of the compass, bearing generally northwest; and here and there we encountered the Navajo Trail, often crossing our road at right angles and stretching directly over the hills, thus lessening the distance at least a third. But it is safer for white men to follow the main road, the trail being indistinguishable for a mile or two in places, on the bare sandrock or among the pinon thickets. Four miles from

Wingate the valley makes a great U to the northward, and our road runs over the foothills for three miles; then enters the valley again, which there narrows to a mere pass. A vast dike of hard trap-rock extends across the country from north to south, standing out above the sandstone like an artificial stone battlement; runs out from each side of the valley in abrupt causeways, and leaves a rugged gap only a hundred yards wide. This opens into a broad and fertile valley, across which three miles bring us to the Rio Puerco of the west. The Puerco I crossed on the 26th of May runs southeast into the Rio Grande; this one southwest into the Colorado Chiquito. We crossed this puerco, rising again into the northern foothills, and stopped for noon in a pinon thicket. The A. and P. R. R. line follows on down the puerco running 15 miles south of Defiance, and I have travelled directly along its lines from El Rito.

For the 90 miles, from the old volcano at Agua Azul to Defiance, the "country rock" is entirely of sandstone, or occasionally soap stone, if that be counted an exception.

The solitary break in the formation is the large dike of trap-rock. I saw not a particle of granite, slate, quartzite, or primary limestone—consequently, no indications whatever of gold or silver leads. The general testimony of soldiers and explorers here is that the formation slowly changes toward the north, even to the San Juan river. There it is granite, and there, also, are valuable gold and silver mines.

At the puerco I left the line of the Atlantic and Pacific Railroad. I might have followed it southeast to a point a little beyond the Zuni settlements, which is regarded as the northeast corner of the Apache country; but just then I did not care to go farther in that direction. A 50 mile strip of Zunis and Navajoes is the least I care to have between me and those interesting savages. I could hear enough about them at that distance.

Twenty-five miles from Wingate we descend a gentle slope into the "lakes"; not bodies of water as the name might imply, but an oval valley of great natural fertility, some five miles by three in extent. A few years ago it was overflowed in winter for a month or two; but in the general drying up which this country has suffered of late, it is perfectly dry all the year. I examined the soil with some curiosity, and found it exactly like that of our Wabash and Ohio "bottoms." If the reader will imagine one of our most fertile tracts of black, rich, loam, plowed, then well rolled, and left for a few years without a drop of rain or dew he will have an exact picture of one of these rich but unwatered valleys. I easily kicked up the black, loose soil, which bore not a spear of grass, and yet had every element of abundant plant life but the one thing, moisture. Three showers would cover it with a rich carpet of green; water enough for irrigation would make it a blooming garden. Everywhere in this region we come upon dried lakes, dead springs and wells, and occasionally cross river beds which evidently once had a volume equal to that of the Miami. Marine and fresh water shells are found by the wagon load in dry flumes, and near them piles of pueblo pottery and broken adobes, where the only indication of moisture at present is found in a few sickly cottonwoods, annually growing less numerous.

Twelve miles more of gently rolling hills and pinon groves bring us to the "hay stacks." These are a series of cones of yellow sandstone, something over 100 feet high, and 50 feet wide at the base, running up to a sharp point. They stand upon an almost level plain, but half a mile away is a rocky ledge containing a vast natural bridge, arched gateway, and all forms of rock tower and battlement which can be imagined.

Eight miles farther brought us to Defiance, situated at the foot of a low rocky range, and almost in the mouth of Canyon Bonito.

Approaching the post across a sandy plain we first come to a dry river bed, with enough of stunted grass to show that water still runs there sometimes. Following up the stream we find first a pool of water ,then a flock of sheep, then Indian farms, and occasionally a hogan, from which the Navajoe squaws and children peep out at us with a sort of hungry curiosity. We cross a common field of 100 acres or so, which the Navajoes have thrown up into beds of two or three rods square for irrigation, and ride into the Fort.

The white population sally nearly enmasse with one cry, "Where's the mail? Why the hell didn't you bring the mail!"

My companion explained that high water on the Rio Grande or some other cause had prevented any military express reaching Wingate from Santa Fe, and consequently there was no mail. The general disgust was painful to witness.

"Here's a gentleman," said my companion, "just from there; maybe he can tell you about Congress."

Then all centered on the question:

"How about the Indian Appropriations Bill? Will they do anything about provision for these Navajoes?"

I replied that to the best of my knowledge and belief, Congress had made no special provision for the Navajo Agency, and pending the present issue in national affairs, probably would not. Then every man in the outpost looked as if all his relations had just died insolvent. General assent was given to the remarks of one employe.

"There'll be another Navajo war, and we'll have to clear. These are the best Indians on the continent, willing to work, and don't want to fight. But, damn it, they can't starve to death right here. We've destroyed their living; run off all the game and shut 'em up here. and their crops failed two years. If we were in their place, we'd fight. They must steal, or starve, or fight, one o' the three. Ain't a man here in Government employ that's been paid a cent for twelve months. They'll give the Apaches sugar and coffee and flour, because they're a murderin' and robbin', and won't give these men anything because they've been peaceable for eight years, and these fellows know it, too. Well, they'll be another Navajo war,—that's what they'll be."

Defiance is only nominally a fort. There is no military post, no soldiers, and only twenty whites all told—four American ladies, one Mexican and fifteen Americans, all employes of the agency. Mr. James H. Miller, Agent of the Navajoes, was absent on an expedition to the San Juan country, and his place supplied by Mr. Thomas V. Keams, the clerk. The other officials and employes were: J. Miller, carpenter; W. Burgess, blacksmith; J. Dunn, wagonmaster; Perry H. Williams and Ezra Hoag, "on issue of rations"; A. C. Damon, butcher, and Andrew Crothers, in charge of grain room. The religious and medical staff constitute an entirely separate department. The physician, Dr. J. Menaul was also a minister, and held service every Sunday; and his lady, Mrs. Menaul, was the teacher employed for the Navajoes. John

H. Van Order acted as interpreter from English into Spanish, and Jesus Arviso from Spanish into Navajo, both employed by the Government and both necessary to a perfect intercourse. Nearly all the employes understood a little Navajo, but not enough to interpret.

Mr. B. M. Thomas, post farmer, constitutes a department by himself, appointed by the Indian Bureau; and the Navajoes are laboring zealously under his instructions. In the ecclesiastical division of the Indian tribes, this region fell to the Presbyterians, and their Board recommends their officers. Mr. Lionel Ayers fills the position of Post Trader, appointed neither by Church nor State, but vouched for by the agent, and licensed by the Secretary of War. The agent and farmer had their wives here, the physician his wife and sister, bringing up the population of this strange isolated community to a total of twenty whites—sixteen men and four ladies: all interesting as occupants of the last outpost, on my route of civilization. From here my companions for a dreary four hundred miles were to be Moquis and Navajoes.

As it was but seventy miles to the De Chaco ruins, I was making ready to visit them with Navajo guides, when the news of an unlooked for tragedy reached us, and threw the little community into a state of consternation.

We were seated at breakfast the morning of the 13th, when one of the party which had gone to San Juan arrived, completely exhausted, and announced that Agent Miller had been murdered, and all their horses stolen but one; that he had started immediately with that, and the rest of the party were coming afoot. Next day the others arrived, quite worn out, having walked a hundred miles in three days, carrying their baggage. Their account is as follows: The party, consisting of Agent Miller, B. M. Thomas(Agency Farmer), John Ayers and the Interpreter, Jesus Arviso, left Defiance on the 4th of June, to inspect the San Juan Valley, with a view of locating the Navajo Agency there. The examination was most satisfactory, as they found one fertile and beautiful valley near the river, capable of being irrigated by a single acequia, and sufficient to support the whole tribe. At the same time, three others left the settlement on a prospecting tour, reached San Juan one day after the Agent's party, and were camped twelve miles from them on the bluff. Neither party dreamed of danger from the Utes, as that tribe had been at peace many years; and, though they annoyed the Navajoes greatly, had not molested white men. On the morning of the 11th, just at dawn, Miller's companions were awakened by the report of a gun and whistling of an arrow, both evidently fired within half a dozen rods of them. They sprang to their feet, and saw two Utes run into the brush; ten minutes after they saw them emerge from the opposite side of the thicket, and ride up the bluff driving the company's horses before them. They did not know, at first sight, that the Utes were hostile, or that they had fired at them. John Ayers spoke to Miller, who did not reply; he then shoved him with his foot, still he did not wake. They pulled off his blanket, and found him dead. The Ute's bullet had entered the top of his head and passed down behind his right eye, without disarranging his clothing in the slightest. His feet were crossed, and hands folded exactly as when he went to sleep; his eyes were closed, and lips slightly parted into a faint smile, as if from a pleasant dream —all showed beyond doubt that he had passed from sleep to death without a struggle or a sigh.

Thus died James H. Miller, a true Christian, faithful official, and a brave man. He was a native of Huntington County, Pennsylvania, enlisted in the

Fifty-fifth Pennsylvania Volunteers, and served three years and four months, most of the time as Lieutenant in Company H. He was appointed Agent of the Navajoes, in December, 1870, entered on his duties soon after, and in the midst of discouragement. The annuity for the previous year was exhausted ;the crops had partially failed, and in 1871 the failure was total. On the verge of starvation, the Navajoes were still kept in tolerable order by his exertions, until the next annuity arrived; and he was carrying out more extended plans for their benefit at the time of his death. He was a devout Presbyterian, and an earnest supporter of what is called "the humanitarian Indian policy." The race lost an active friend by his death. The grief of the Navajoes was profound and unaffected. His companions and the mining party buried him near where he was killed. His wife and infant son were at Defiance, but started to the States in a few days with the military express.

A general Ute war was apprehended, and all thoughts of an expedition in that direction were abandoned. I wandered about the Navajo country, gathering curious stones, and studying the "lay of the country"; but mostly amused myself by taking notes of the Indians. Their condition was worse than ever before. The last grain in the Agency storehouse was issued to them on the 14th, and most of them looked lean and hungry enough. They began on their horses and sheep, having decided to eat their old horses and wethers first, saving the ewes and goats to the last; for these are more hardy and besides, their milk is an important item. As long as there was grain, we purchased goat's milk of them, paying in grain; and I found it very palatable and nutritious. But I did not relish the flesh, finding it rather rank and stringy. I did not taste horseflesh, though in my visits to some of the more distant hogans, I found them gnawing away at what looked suspiciously like equine shanks. The white men who have eaten it say it is very nourishing, but I am too old now to overcome my early prejudices. The Agency employes had not been paid for a year, and as they have to buy their own provisions, things looked blue for them. When I first arrived, they were faring sumptuously on coffee, bacon, bread, potatoes, and goats milk; but one by one, our luxuries vanished, and for the last three days we lived on Navajo bread, coffee and "commissary butter," straight.

In all their troubles the Navajoes are lively, cheerful and looking for better times. To see ten thousand people able and willing to do almost any kind of work, with natural talents of no mean order, and most anxious to improve, to see such a people shut up on this barren plateau, and kept out of that part of their country in which they could live, literally perishing without a chance to help themselves, was enough to sadden even a hard heart. What would a community of ten thousand whites do in such a case? Who, if anybody is to blame, I do not know. The melancholy facts I saw.

But Congress did not adjourn without passing the Indian Appropriation Bill, and soon the Superintendent at Santa Fe sent them grain enough to last till a new crop came in. There was rejoicing in the hogans in consequence. The Navajoes are the original Romans of New Mexico and Arizona. For two hundred years they carried on almost continual war with the Spaniards, disdaining all offers of peace or alliance, and preying upon the valley of the Rio Grande. At length each separate Mexican settlement adopted the plan of buying off its nearest Navajo neighbors, paying tribute to one band to guard them against the rest. This succeeded admirably until the American occupation; then the "Greasers," emboldened by the idea that our army would protect, refused the tribute, and the Navajoes descended in three bands, and swept several settlements clean of their stock. They committed their worst depredations all around, and within twenty miles of, the last division of Kearney and Doniphan's forces.

A flaming proclamation of war was issued, and of the results the report of J. Madison Cutts, with the army speaks thus cautiously:

"The campaign against the Navajoes was accomplished in the dead of winter, without supplies or tents. He succeeded in forming a treaty with these troublesome Indians, represented as more warlike than the Mexicans, to whom they were a great source of dread and injury, on the 22d of November, 1846." The fact was, our army could not then afford to go to war with a brave and desperate race in such a country as the Navajoes occupied.

Occasional difficulties took place until Fort Defiance was established, in 1850. Then there was peace for seven years. In 1857 a negro slave of Major Brooks, an officer stationed there, had a difficulty with a Navajo subchief. The friendly and compliant manners of the Indians had led the soldiers to consider them cowardly as well as peaceable. The Negro passed the chief on the parade ground one day, and turning behind him, gave him a violent kick. The Navajo whirled about and let fly an arrow, which passed entirely through the negro, who fell dead. The Indian fled to the mountains; the tribe refused to surrender him, and another war began, and lasted, with but slight intermission, until 1864. The national officers found it impossible to conquer the Navajoes except by destroying their stock. It is reported that over fifty thousand sheep were bayoneted. One little valley, a few miles from Defiance, is almost literally paved with the skeletons of sheep destroyed there to prevent the Navajoes from using them. The Utes also drove away many thousands, and this tribe was completely beggared. But before they were entirely subjugated, the Texan invasion of 1861-62 took place, compelling the abandonment of this post and Wingate, and the Navajoes had things their own way again.

In 1863 General W. H. Carleton led an army thither, completely destroyed their means of subsistence, and induced the whole tribe to surrender. They had not a sheep left, and very few horses. Numbering ten thousand, they were taken in a body to the Fort Sumner reservation, where small-pox and endemic fever preyed upon them, and one-eighth of the entire tribe perished. The venereal poison also was there introduced among them, which has destroyed many. In 1868 their great Chief, Barboncito, made such representations to General Sherman as induced him to consent to their return here. They went zealously to work, and in 1870 raised about half a crop. The seeds furnished by the department were unsuited to this high altitude, and most of their plants were cut off by the September frosts. In 1871, they planted extensively, worked hard, and had every prospect of an abundant crop, when, on the night of May 30, came a storm unprecedented in the region; the ground was covered an inch thick with sleet, and every plant and young fruit tree frozen solid to the ground. The annuity goods and provisions of that year were soon exhausted, and theft or starvation was the only alternative. But the sheep given by the Government had increased rapidly, and are now numbered at thirty thousand in the tribe. Their horses are returned at twenty thousand. The difficulties in the way of improving their condition are many: they are a pastoral rather than an agricultural people;

their most fertile and extensive valley, on the San Juan, they can not now farm on account of the Utes, and many other valleys formerly productive are now barren on account of the four years' drought. Near where I crossed the Puerco is a beautiful valley from which, as Mr. Dunn informs me, when he was a soldier here, they hauled fifty wagonloads of corn, and destroyed on the ground a hundred more. Now, no cultivation could raise a grain there. The Puerco at that point, in the dry season of 1958, had a current a rod wide and two feet deep; now it looks as if water had never run there since the creation. The "big field," two miles south of Defiance, which produced seventy bushels of corn per acre five years ago, can not now be cultivated at all. A small river ran there, which is now totally dry. I am inclined to think that this country has wet and dry cycles, of ten years or more each. Neither snow nor rain enough has fallen within the last two years to make up the moisture of one of the wet months in former times.

Mrs. Charity Menaul, the teacher, reports considerable progress among the Navajoes under her charge. In my visits there and talks at the hogans, I learned many interesting particulars of Navajo theology, etc. Like most savage races, their religion is principally superstition. Chinda, the devil, is a more important personage in all their daily affairs than Whaillahay, the god. Like the Mormons, Shakers, and other white schismatics, they attribute everything they don't like in other people to the personal agency of the devil; and about the only use of their god is to protect them from evil. They have a tradition of a flood, but think that was caused by the devil damming the rivers. Their moral code is extremely vague: whatever is good for the tribe or band is in general right; whatever is not pro bono publico is wrong. Cowards, after death, will become coyotes; while braves will continue men in a better country. Women will change to fish for awhile, and afterwards to something else. But they don't trouble themselves much about the next world. If they had plenty in this, they would consider themselves in luck.

The luxuries of life are not obtainable at Defiance, some things we should call necessaries are rather scarce. Navajo flour is the only kind used. The first meal I was delighted to see our Indian servant bring in was what I recognized as an old Yankee acquaintance—"Graham biscuits": though they looked rather more coarse and lumpy than the Eastern kind. The first mouthful I thought was half dirt; it "gritted" so on my teeth that I could not restrain an expression of disgust. At this my host, Mr. Keams, acting agent, apologized by saying that the "Navajo grindstones were soft, and left rather more grit in the flour than he liked." A few meals soon reconciled me to this grit, and I am convinced that Navajo flour makes the most wholesome bread in the world. The grinding is done by women, who become quite skillful. The lower stone is some eighteen inches long, sloping a little from the worker. The upper stone is about six inches square. The woman lays a clean sheep-skin on the ground, sits on one side of it with the wheat by her, and the stones in front; then rakes the wheat up by a regular motion of the left hand running the small stone over the other with the right. The wheat rolling down as she grinds, is reduced to a fine pasty flour. For corn two or three women usually grind together, each one passing it to the next, who reduces it to a finer consistency. In their bright-colored garments, with long black hair swaying as they move their bodies back and forward, a group of them looks very picturesque, if not neat, while at work they sing a monotonous song, which sounds very much like our rural "Barbara Allen," in very slow time. For their own use they make of this pasty flour a very thin mixture, no thicker than starch, which they cook on hot stones. The fire is built in a small hole, on which is placed the flat stone, no more than an inch thick; when sufficiently hot, the squaw thrusts her hand into the starchy solution, and rapidly draws a handful, which she spreads upon the stone. In a half-minute it is cooked in the form of a thin brown wafer, no thicker than cardboard. Another follows, and another, until the cooked wafers form a layer some six inches thick. They then roll them up in shape convenient to carry. Half a gallon of the thin paste of flour will make a roll the size of a half bushel. That which I have eaten has a rather insipid taste, from the want of salt or other seasoning; but is very nutritious and strengthening. The bread they made of corn I find very palatable. Two bushels of wheat is a day's grinding for one squaw. They complain that the stone hereabout is very poor for grinding, wearing out in a few days, and leaving too much grit in the flour. Our bread was regularly prepared in a stove, and our Indian cook displayed some skill; besides, when accustomed to it, I found it very palatable, and while using it my digestion was simply perfect. I spent many hours every day in the hogans of the Navajoes, trying, when they were in a teaching humor, to catch the peculiar click of their language. I soon acquired some fifty words, and began to see something like system in the language.

Their social customs and adornments have a singular resemblance to those of the Japanese. They treat their women as well as most white nations. Men do the out-door work, women that of the household. The latter are very communicative, humorous and mirthful, and nothing seemed to amuse them so much as my attempts at their language, at which they would listen and laugh by the hour. They say that a woman first taught them how to weave blankets and make water-jars, for which cause it is a point of honor with a Navajo never to strike a woman. Their women are not overworked or abused, and are consequently more shapely and graceful than those of other tribes. It is a singular sight to witness an Indian carrying a baby, while the squaw walks unweighted, but one may see it every day about Defiance. They formerly captured many Mexican women, whom they adopted and married, which may have produced some change in the general characteristics of the tribe. They are the only wild tribe I know who do not scalp dead enemies. They never had that practice. In fact, they never touch a dead body, even of their own people. Each hogan is so constructed that the weight rests mostly on two main beams. When one dies in a hogan, they loosen these two outside, and let it drop upon him. If one dies on the plain, they pile enough stones upon him to keep off the coyotes, but never touch the body. This observance is a serious drawback in one respect: it prevents them from building permanent dwellings. It is said to be a part of their religion, but from the confused accounts I have of it, I draw the conclusion that it originated in some great plague, where contagion resulted from touching the corpse. They are very inquisitive; a watch or pocket-compass will interest them for hours. If I were in the mission business, I would rather be a missionary among the Navajos than any savage people I know of, for here is some native mental activity to work upon. But their language would present a great barrier to christianizing them.

When a communication is twice translated, it triples the ambiquity; and that is the method employed with them; one interpreter speaks English and Spanish, the other Spanish and Navajo. I made my remarks in the plainest, most terse English I could command, which the American translated into the florid Castilian; this, in turn, the Spaniard rendered in the hissing, complicated phrases and cumbrous polysyllables of the aboriginal tongue.

Defiance is located on some maps directly on the Territorial line; by others in New Mexico, and by others, still, some sixty miles west of the line in Arizona. It is, in fact, three miles due west of the surveyed line. On maps of later date you will find a Fort Canby in New Mexico, and Defiance in Arizona. They are the same, called by different names.****

Ten days among the "gentle savages"—for so the Navajoes appeared to me—had given me a rest, and I was ready to go west, expecting to accompany part of the tribe on their summer hunt down the Colorado. But time was pressing, and I concluded to employ one to take me via De Chelly to the Moquies, where a trading party would overtake us, and go on to St. George, Utah. Mr. Thomas V. Keams, Clerk and Acting Agent, outdid official courtesy to give me a good send-off; and calling Juerro war-chief of the tribe, together they selected a most intelligent young man of about twenty-five. I also procured gun, horse, and equipment, blankets and provisions at reasonable rates; for it takes an Indian to trade with an Indian. I was to provision myself and one man to the Mormon settlements, and one man back, besides his fee. Thus ran the bill: Thirty pounds of flour, ten pounds of bacon, ten pounds of sugar, five pounds of coffee, and six boxes of sardines, the whole costing but twenty dollars. The same sum to my guides, and five dollars for the hire of a burro, made the total expense for a trip of nearly five hundred miles, forty-five dollars—not much more than railroad fare. My horse, bridle, saddle, lariat, gun (a Spencer) and two Navajo blankets cost me two hundred dollars; but these are not to be counted in the general expense, as they were worth nearly as much in Utah.****

The Bonito Hills, averaging five hundred feet above the plain, run directly north and south. On the west side of them is a vast inclosed basin, from which Canon Bonito breaks directly through the hills—a sharp, abrupt gorge, square across the formation, with perpendicular walls entirely inaccessible. The east end of the canon broadens into a little valley, at the mouth of which, though out on the plain, the fort is situated. A large river once ran through the gorge, of which the successive periods can be traced on the sandstone walls to a height of two hundred feet. This seems to have been the original bottom of the canon, whence the river steadily cut deeper until it had completely drained the basin above. The river had long been dry when the fort was located, but several springs in the east end of the canon created a stream sufficient to irrigate two sections of the land on the plain. Here the Navajoes had raised corn and melons from time immemorial; they had no other vegetables when found by the whites. The present occupants of Defiance have thrown a dam across this end of the canon, producing a beautiful artificial lake some three hundred yards long, and rising so high as to leave barely room for a wagon road. The lake is strongly alkaline, but a few rods below is a strong spring of the nicest and purest water to be found in these mountains. It is the one important treasure of this post, which, without it, would be almost uninhabitable.****

Our direction is north by northwest to the head of Canon de Chelly (from Ft. Defiance). All this part of Arizona consists of a succession of high, almost barren sandstone ridges, separated by narrow valleys **abounding in rich grass.** While on its eastern border I thought the Navajo Reservation a very poor strip—it contains nearly 6000 square miles—but since I have seen more of it I think it will graze at least half a million sheep and goats, besides horses enough for the necessities of the Tribe.

Three miles out, (from Ft. Defiance), a turn around a sandstone cliff brought to view a delightful surprise in the shape of a beautiful green valley, about a mile square, perfectly level and covered with grass a foot high. On every side of it rose bare columns and ridges of sand-rock, but from their base trickled here and there tiny rills of water—enough to keep the valley fertile. Herds of sheep and goats, attended by Navajo girls, and some horses attended by boys, enlivened the scene. Through this, and on to another sand ridge, then three miles more, brought us to a long narrow valley, winding for miles among the hills, and looking as if it had once been the bed of a river, and been heaved up by some convulsion. For hours we crossed such valleys every two or three miles, none of them more than a hundred yards wide, and separated by barren ridges. The grass in the valleys was rank and thrifty; the ridges had nothing but an occasional spring of sage brush or cactus. Everywhere along the grass plats were shepherd girls with considerable flocks, each girl carrying a set of Navajo spools and a bunch of wool, on which she worked in the intervals of watching. These spools are very similar in shape to those used in our rural districts, but large and clumsy. With a pointed stick, turned in the right hand, the spinner runs the wool on to the larger spool in rolls somewhat smaller than the little finger. Having filled it, and transferred to a smaller stick, she runs it to the smaller spool in the form of a very coarse yarn, when it is ready for the "filling" in a blanket. Herding is the most laborious work the Navajo girls have to do; they have all the advantages of the healthful climate, without the fatigue of long expedition, and are, as a rule, stronger and healthier than the men. They are the only Indian girls I ever saw who even approximate to the Cooper ideal. Their dress is picturesque, consisting of separate waist and skirt; the former leaves the arms bare, and is made loose above and neat at the waist; the latter is of flowered calico, with a leaning to red and black, and terminates just below the knee in black border or frills. Neat moccasins complete the costume, the limbs being left bare generally in the summer. They are very shapely and graceful, and their strength is prodigious. How these mountaineers, on the thin food they have, manage to produce such specimens of perfect physical womanhood, is a mystery to me. One of the prettiest girls I saw at Defiance, named "Zella" by the Teacher, who knew a little English, informed me that for months at a time she had nothing but goat's milk, boiled with a thin, watery root, which they use for food. Where goat's milk is plenty, the children thrive well on that alone. These shepherds are the best situated of any part of the tribe, and their living, though plain, is not so uncertain as that of the cultivators.****

With reference to the Canon de Chelly, after supper I took an evening stroll as far as I could go up one of the gulches, and after lighting my pipe had sat down upon a rock to watch the line of sunshine and shadows slowly creep up the sixteen hundred feet of the opposite cliff, when I was startled by something like a groan. Within a rod of me, but so low I had not noticed it, was a temporary hogan; and glancing in I saw a woman with ulcerated face, lying on an old blanket, and murmuring in troubled sleep. She waked, and, seeing me, muttered, "Hah-koh!" which invitation being declined, she reached out a trembling and blotched hand, murmuring, "Nah-toh, nah-toh" tobacco). Having given her all I had with me, she became quite communicative; then, seeing I did not fully understand, pointed to the sores on her arms and mournfully muttered, "Chah-chos, chah-chos," a Navajo word indicating the venereal poison. (Syphilis: chach'osh). She was in the last stages, and had evidently been removed to this place to die, as they never use a hogan in which any one has died—another singular resemblance to the Chinese. Their physicians treat this disease with the sweat-house and the application of a peculiar clayey stone, pounded fine, and indigenous herbs; and often, white men tell me, with great success. There is something horrible in the idea of these simple mountaineers receiving such a curse from the superior race.****

(On June 20 the author arrived at the opening of Canon de Chelly, and described the scene as follows:) The grand scenery continues to the very mouth of the canon, which we reached in two hours, then breaks down into a brief succession of foothills and ridges of loose sand, and brings us to an open plain. Here were two or three sections of land under some sort of cultivation by the Navajoes, but it was the most pitiable prospect for a crop I ever saw. The feeble, yellow blades of corn, three or four inches in height, had struggled along through drought and cold until the heavy frost of June 17th, and now most of them lay flat on the ground. My guide waved his hand over the field, exclaiming, mournfully, "Muerto, muerto" (dead): "No chinneahgo Navajoes."* A few of the more resolute were out replanting, which they did with a sharpened stick, or rather paddle. They dig a hole some ten inches through the dry surface sand to the moist layer underneath, in the edge of which they deposit the grain. They plant wheat the same way, in little hills a foot or so apart, and weed it carefully till it is grown enough to spade the ground. If there is water they irrigate; otherwise, it has to take its chances, and the guide informed me that the acequia we saw issuing from the canon had been dry pasar muchos anos (for many years). Twenty bushels of corn and ten of wheat are extra crops. If any citizen of rural Ohio, who can deliberately sit down three times a day and recklessly eat all his appetite craves, is dissatisfied, he ought to travel awhile in this country. The stream that sinks above gives this tract enough of subsoil moisture to insure some growth. Crossing the dry arroyo we rose on the western side to a vast flood plain, ten miles wide, and running as far as I could see from north to south. The surface showed that it had been flooded some time within the last few years; there was not a trace of alkali or other noxious mineral, and the soil was of great natural fertility. But there was not a spear of vegetation on it, simply for lack of moisture. Here are at least a hundred square miles, formed of detritus and vegetable mold, utterly worthless for want of water. If artesian wells are possible, the whole tract may be of great value.****

(The author and his guide proceed beyond Chinle toward a low range of grey and chalky looking hills. As they approach, the sage brush becomes thicker, and they finally arrive at and climb a rocky cliff which they describe as like riding up a mountain of chalk.) On the western side, my guide had told me, we should see the last Navajoes, but we soon met most of the colony driving before them their little herds, and to the guide's question they replied that the grass there was gone, the water dried up to one spring, and that was hohkawah ki wano (decidedly not good). Though I did not quite understand this, I saw, by its effect on the guide, that was bad news for us, who had already ridden forty miles. We found but one family left, and their brush hogan showed that they were on the move. The woman brought out a copper kettle full of water from the only spring, a mile up the gulch which was horribly slimy and stinking; but the guide decided that we must have some of it, and in an hour's climbing we reached it.

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*Nothing to eat for the Navajos.

All around the little pool the sandstone had been trodden to powder, and was blowing into the spring, the water was of a sickening green, full of weeds, and ugly creatures, and looked and smelt as if ten thousand goats had waded through it. My Navajo pointed sadly to a few tufts of grass, which had been chewed to the ground, and even the roots pulled up by the goats, and intimated, by gestures, that we must go till long after sundown to find good grass.****

Every Apache is a born robber and murderer. Extermination, whether in war or under the form of reservations and legal justice, is their certain fate; and the quickest way is the most merciful.

It is directly the opposite with the Navajoes. They acquired considerable civilization before they met the whites; they will work readily at any productive employment, and learn the use of tools very readily. There is as great a difference between a Navajo and an Apache skull as between that of a Saxon and a Malay. I took occasion to examine several of both tribes when our party got down to the old hunting-ground, where several battles had been fought, and where I saw probably fifty skulls, both Apache and Navajo. The latter are high and round enough to show considerable development in the moral qualities, and the capacity to keep treaties.****

To sum up, finally, on my Navajo friends: I am decidedly of the opinion that they can be civilized, and that the present policy of the administration has been, and will be, a perfect success as applied to them. Their career, I think, will be somewhat like that of the Cherokees, except that they will become cultivators and manufacturers in much shorter time. The great mistake, I think, in treating on Indian character is this: Writers and statesmen ascribe certain traits to Indians without any distinction, classing all in one category; while the simple fact is, there is a greater difference between different tribes than between the native Caucasian of Boston and the native Caucasian of Hindoostan. The Navajo is no more like the Pi-ede or Pi-Ute than the average American is like the Hindoo. There are tribes evidently progressive, others stationary, still others retrograding. There are many incapable of the slightest advance, and awaiting only a slow extinction."

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In 1866, two years before the Navajoes signed their last treaty with the United States, Congress passed the so-called Enabling Act to encourage the construction of railroad systems. In accordance with this Act, public lands in alternate sections extending to a depth of 40 miles on either side of the railroad right of way could be granted to the railroad companies to thus make investment in railway construction more attractive. The Act was amended later to grant an additional 10 miles of grant lands to offset losses resulting from prior claims of settlers.

When the Tribe returned from Fort Sumner in 1868, the intention was to hold them within the limits of the 3½ milion acre treaty Reservation, and the treaty of 1868 itself so provided. However, in view of the fact that the Reservation area was too small for a pastoral people, and in view of the fact that the country for many miles around had previously been occupied by the Tribe, the Navajo soon spilled over the Reservation boundary and reoccupied the areas where they had lived before going to Fort Sumner. In fact, **some** Navajos had continued to live in the Navajo country while the main body of the Tribe was in captivity, and **some** returned directly to old areas of occupation upon their return from exile.

In 1876 Tribal leaders received word that a railroad was to be built along the Southern boundary of the Reservation, and that the Atlantic and Pacific Railroad Company was to receive the customary strip of alternate sections along the right of way. This strip bit deeply into land the Navajos considered their own by right of prior occupancy and, indeed, soon brought many Navajo families into conflict with the Railroad Company, for they found themselves to be squatters on Railroad Sections. The Company demanded their removal to the Reservation, and the Navajos resisted in vain for, during 1881-82 the Atlantic and Pacific (later to be known as the Atlantic Topeka and Santa Fe) tracks crossed Northern Arizona.

In other instances, Navajo families settled on the public domain outside the Reservation boundaries, only to be dispossessed by white settlers who filed for homesteads on the same areas and thus established a legal claim.

Many Navajos settled in the area east of the Reservation in New Mexico, and some of these people were protected in their rights of occupancy by the Executive Order Extension of January 6, 1880. Subsequently, the eastern portion of the Reservation was further extended by the Executive Orders of November 9, 1907 and January 28, 1908, issued by President Theodore Roosevelt. For a few years the eastern Navajos were safe in their rights of occupancy, but not for long. Demands of non-Indian stockmen competing with the Indians for grazing land in western New Mexico resulted in the restoration of the two eastern extensions to the Public Domain. This was accomplished by President Roosevelt's rescission of one of the Executive Order Extensions on December 30, 1908, and by President Taft's revocation of the other on January 16, 1911.[9] The Indians, their property and security placed in jeopardy, were bitter, and for many years, until the 1930's, they attempted to regain the lost territory.[10]

Just before the Reservation Extensions in New Mexico were revoked, allotment agents were sent by the Bureau of Indian Affairs to assist Navajos living in the area affected to file allotment claims on the land restored to the Public Domain. This was accomplished in accordance with the Indian Allotment Act of 1887 which permitted individual Indians to apply for and receive trust patents on certain types of land. In the New Mexico area the Indian allotments were interspersed among non-Indian holdings, creating what is currently known as "The Checkerboard Area." In recent years both the Navajo Tribe and the Bureau of Indian Affairs have been working toward the consolidation of Indian holdings through exchange and purchase. The Checkerboard Area has long posed serious problems, especially with regard to criminal jurisdiction with regard to land use and with respect to trespass on public domain, state, railroad and private holdings.

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(9) V. Hagerman, H. J., Navajo Indian Reservation, Senate Document No. 64, P. 29 (1932).

(10) According to R. Van Valkenberg the eastern boundary recommended in the Navajo-New Mexico Boundary Bill of 1936 was coterminous with the eastern reaches of the Navajo Country agreed upon and marked with stone monuments in the first known treaty between the Navajo and the Mexican government, concluded on October 29, 1819.

Also, although the exterior boundaries of the Reservation have been redefined by Acts of Congress for areas in Arizona and Utah, the eastern boundary in New Mexico remains that established by the Executive Order of January 6, 1880.

The years since the return from Fort Sumner have been hard years for many Navajos. The growing population was obliged to eke a living from an inadequate land base which, through over use, was rapidly deteriorating. The resulting soil erosion led the Department of the Interior to impose grazing regulations in the 1930's and force reduction of the number of livestock using the Reservation rangeland. During the period 1930 to 1940 livestock fell from 1,111,589 to 621,584 sheep units,[11] with the brunt of the reduction being borne by horses and goats. Although not all were required for actual use, horses were accumulated in the traditional society as symbols of wealth, and the Navajo were reluctant to part with them. At the same time The People, already facing serious economic problems, untrained for any life except the traditional pastoral way, were convinced that their security, if not their very survival was seriously threatened. They reacted by fighting the reduction program bitterly for more than a decade.

In the course of carrying on the many soil conservation and public works projects of the 1930's, the Federal Government introduced the beginnings of a wage economy to the Reservation. Prior to the period in reference few Navajos had ever performed services in exchange for cash with which to purchase the necessities of life. The old economy had been based primarily upon barter of livestock, wool, and other products for food and clothing, or for credit at Reservation trading posts.[12] In fact, many families subsisted on credit extended by traders against a future lamb or wool crop, and there were few cash payments to Navajos for agricultural and other products. Some traders utilized trade money, each "coin" or token representing credit in a specified amount at the specific trading post issuing the trade specie. There was no need for actual money as a medium of exchange and, as a result, many Navajos could barely count money, much less use it judiciously in lieu of produce and credit as media of exchange. The WPA, CCC, SCS, and other public works organizations were the foundation of the Reservation wage economy, for through such employment many Navajos were introduced to the use of cash.

World War II brought a labor vacuum to which many Navajos flocked for employment in wartime industry, on railroads, in off-Reservation agriculture and in mining. In addition, an estimated 3600 young men found their way into the armed forces. As a result, during the war years, The People broadened, not only their knowledge of money, but their cultural horizons generally. They learned how to live in the world outside the Navajo Country; they were introduced to customs of the white people and to the English language, and at the end of the war they were no longer the people of a few years before.

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(11) A sheep unit is determined by the amount of forage required to sustain one sheep or goat for one year. Horses and mules counted as 5 sheep units, and cattle at 4.

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(12) Even in the first decades following the return from Ft. Sumner, ad before the construction of the railroad, there was a brisk trade in Navajo produce. In the letter book of the Ft. Defiance Agency for the period Sept. 1880-Sept. 1881, Navajo Agent F. T. Bennett states that "not less than 1,100,000 pounds of wool have been marketed this season (just closed) and I should estimate that at least 100,000 pounds were manufactured into blankets and for clothing for their own use."

With the close of World War II, the wage work upon which a majority of Navajo families had come to depend came to an abrupt end. The People suddenly found themselves obliged to return to the Reservation whose meager resources had become even more depleted through negligence during the war years. Some families returned with only empty stock permits; many had only a handful of stock, or farms that had not been in production for several years. As a result, the Navajo people found themselves in dire economic straits.

It was a crisis requiring immediate action. It had been known for many years that Reservation resources were inadequate for the support of the total population at anything approaching an acceptable living standard, but the plight of the Navajos did not become a matter of national concern until the post-war period. Emergency relief was provided, both by the Congress and by a generous public throughout the land, but relief was only a stop-gap. The Navajos, in the course of living and working outside the Navajo Country during the war years had realized the need for education to provide salable skills, knowledge of the English language and related tools without which they could not hope to compete successfully with non-Navajos for a livelihood.

As a result of the crisis of the late 1940's, Congress enacted into law the Long Range Program for the Rehabilitation of the Navajo and Hopi tribes, authorizing a total of $88,570,000 for appropriation over a ten year period for the accomplishment of certain specified basic objectives.

At the same time Congress abandoned the paternalism that had pervaded Indian policy for nearly a century, and substituted a policy of gradual withdrawal of Federal supervision over the lives and affairs of Indian tribes. The intention was to prepare Indian groups gradually to accept and exercise greater responsibility in the administration of their own affairs, toward the time when they could be brought to the social and economic level of the nation as a whole, after which the Federal Government planned to withdraw all special services of those types provided to Indians as such. Withdrawal programming took into account the varying degrees of acculturation attaching to individual tribes, and recognized the fact that more time would be required to prepare some groups than would be required for others, depending on factors involved.

As a result of special programming and the change in Federal Indian policy, coupled with a decade of national prosperity, the Navajo have undergone what amounts to a social and economic revolution during the period 1947-1957, and the period of rapid change has not yet ended.

The development of the Navajo Tribal Council has been outlined in detail under the heading "Political Organization," and its rapid growth in strength, leadership and effectiveness is apparent in the discussion of its organizational expansion. However, the acceleration in development which has characterized the Tribal Government in the last decade is perhaps best illustrated and traced through the medium of some of the more important actions of the Council during that period.

IMPORTANT ACTIONS OF THE NAVAJO TRIBAL COUNCIL

In 1940, the Chairman of the Navajo Tribal Council received a salary of $200 per month for which he presided over meetings of the governing body, acted as a liaison officer between the General Superintendent and the Tribe, and dealt with those items of tribal business that came to him for attention. It was a difficult position, principally because of the conditions surrounding both the Council and the Bureau of Indian Affairs during the livestock reduction years. During the same period Council delegates were paid at the rate of $3.00 per day.

In 1949, the Chairman of the Tribal Council moved his residence to Window Rock and established an office at the Navajo Agency. His salary was increased to $5000 per annum while, in the same year, the Council delegates increased their compensation to $14.00 per day plus $.07 mileage allowance. By 1949 the Council had grown to the point where it was making a greater variety of important decisions than it had ever made in past times, and the Chairman of the Council had become a full time officer of the Tribe to whom the Council and the people alike looked for leadership.

In 1952, growth in the responsibility of Tribal Government was reflected in a raise of the Chairman's salary to $7800 per annum, with increase of per diem allowance for travel from $9.00-$14.00 a day. The Chairman was well on his way to becoming a national figure, and was in demand both on and off the Reservation; by Navajo and non-Navajo communities and organizations alike. The Council was convinced that their leader and representative should be paid a sufficient salary to make a good appearance in public and maintain a standard of living commensurate with his position.

Four years later, in 1956, the offices of both Chairman and Vice Chairman had become so demanding on these elected officers of the Tribe that their salaries were placed on a gradually increasing scale for each year of their term in office. The beginning salary of the Chairman was fixed at $9000 per year, increasing to $10,000, $12,000 and $13,500 during the remaining years of the term, and established at $15,000 a year for any succeeding 4-year term to which he might be reelected. The salary of the Vice Chairman begins at $7,000 rising to $8,000, $9,000, and $10,000 during the first term, and fixed at $11,000 for succeeding terms if the incumbent is reelected. At the same time the compensation of the Council delegates rose to $32.00 per day, including $20.00 salary and $12.00 per diem.

On May 24, 1949, the Council authorized the hiring of a Tribal Accountant-Auditor, and in the same year established the appointive office of Tribal Secretary-Treasurer. In 1950 the Tribe developed and approved the first Tribal Budget in the amount of $1,217,888. The Budget was authorized by Section 7 of the Navajo-Hopi Long Range Rehabilitation Act which provided that "Notwithstanding any other provision of existing law, the tribal funds now on deposit or hereafter placed to the credit of the Navajo Tribe of Indians in the United States Treasury shall be available for such purposes as may be designated by the Navajo Tribal Council and approved by the Secretary of the Interior." In August, 1951, the position of Certified Public Accountant was established in the Tribal Offices to manage the growing business of the Tribe.

In 1950 the Tribal Council approved a revision to its outmoded election procedure, including the use of a pictorial ballot, and established Council Committees on Administration, Community Services, Engineering, Resources, Loans, and Trading to thus provide effective media for cooperation with parallel activities in the Bureau of Indian Affairs.

A year later the Council adopted a resolution requiring a minimum of four quarterly meetings of that governing body, which had formerly convened only at the call of the General Superintendent of the Navajo Agency and the Council Chairman.

In 1952 the Tribe contracted with a firm of insurance analysts to analyze the insurance requirements posed by the growing mass of Tribal property.

In 1954 the number of Tribal employees had increased to such extent that housing was inadequate to meet the need. The Council therefore authorized the expenditure of $225,000 for necessary housing construction.

In 1955 the election procedure was again revised and the Tribe assumed full responsibility for the conduct and financing of its own Tribal elections. In the same year a procedure was developed to govern enrollment in the Navajo Tribe and to define eligibility for Tribal membership.

In 1957 the Council established a Tribal Department of Farm and Range Management to administer sheep dipping and livestock vaccination programs, fee patent land acquired by the Tribe, the tribal water development program, and other projects formerly the sole responsibility of the Federal Government, but failed to provide necessary financial support in the 1958 Tribal budget. In the same year the Tribe declined to permit the establishment of additional National Parks and Monuments on the Navajo Reservation, but acted to authorize a Navajo Tribal Park Commission and the establishment of Navajo Tribal Parks. Also, in 1957, the Council created a Tribal Department of Community Services to provide even closer participation than before in the fields of education, law enforcement, health and welfare.

The receipt of over $33 million in oil and gas lease bonus revenues in 1956 led to consideration of a Tribal Long Range Program aimed at providing necessary services and developments which had not been, or were not likely to be, developed by the Federal Government. In January 1957, the Council approved Part I of the proposed Tribal Long Range Program, appropriating $5,000,000 as a perpetual Tribal Scholarship Trust Fund, from which the interest or other proceeds would be available each year for scholarship grant purposes to worthy Navajo youth, and the appropriation of $3,000,000 over a 5-year period was authorized for Reservation water development purposes.

In the post war period the controversy involving control of grazing on the Reservation range again arose, and the Indian Claims Act, passed by Congress in 1946, demanded attention by the Navajo Tribe if it wished to formulate and press its claims before the newly established Indian Claims Commission. To assist the Tribe in its efforts to temper livestock controls, to develop Navajo claims against the Federal government, to provide advice and guidance in the conduct of Tribal business, and to assist the Tribal Council in determining and exercising its rights and prerogatives as the Tribal governing body, a Tribal Attorney was hired in July of 1947. Mr. Norman M. Littell of Washington, D. C. was selected and authorized by the Tribal Council to function in the dual capacity of Claims Attorney and General Counsel.

In October, 1947, Lee Muck, Assistant to the Secretary of the Interior (Land Utilization) was sent to the Navajo country to survey range conditions and the Tribal Attorney was no doubt helpful in securing a subsequent "moratorium" on stock reduction, with departmental instructions that the grazing regulations be revised to encourage greater Tribal participation and responsibility in the regulation of Reservation range use.

Also, contending that the Navajo Tribe did not receive fair value for helium resources purchased by the Federal Government, the Tribal Attorney brought suit against the United States in the Federal Court of Claims. The case has not yet been resolved.

In 1956 the General Counsel succeeded in obtaining a decision in the Supreme Court of the United States on behalf of 30 Navajos living in Southern Utah. The group had been illegally deprived of property and awarded $100,000 damages by the Federal District Court in Salt Lake City, Utah, a decision which was subsequently reversed in the United States Court of Appeals in Denver, Colorado. The General Counsel for the Navajo Tribe carried the case to the Supreme Court of the United States which reversed the Court of Appeals and remanded the case to the District Court for redetermination of damages. In addition, the Tribal Attorney has been instrumental in developing an elaborate Navajo Claims Case for presentation before the Claims Commission, and with his legal staff, has guided the Tribe in assuming and exercising an ever increasing burden of responsibility for the management of its own affairs, in conformity with Bureau policy encouraging Indian Tribes to take over such management and responsibility as rapidly as possible.

The rapid development of Uranium mining on the Reservation after 1950 brought with it a new need for legal guidance in the development of mining regulations, the granting of prospecting and mining permits and in other connections. To meet this need the Tribe, in 1953, authorized the position of Assistant General Counsel to function at Window Rock under the supervision of the General Counsel in Washington, D. C.

Although the legal requirements of Tribal business were adequately met, there remained a need for an attorney to give legal advice and guidance to individual Navajos, and to the Judges in the Navajo Courts of Indian Offenses and, in 1953, the Council established the position of Tribal Legal Adviser. With reference to improvements in the organization and operation of the Reservation Courts, one of the elected Tribal Judges was designated as Chief Judge and charged with the responsibility for developing an efficient Court system. Also, in 1953, the Tribal Council adopted a code of traffic regulations patterned after those used by neighboring States.

In 1955 the steadily mounting tempo of Tribal business made it necessary to add another attorney to the legal staff at Window Rock, and this was accomplished in the form of an Associate Tribal Attorney. The latter functions under the supervision of the Assistant General Counsel.

During the period 1938-47 the Tribal Council enacted legislation affecting the internal affairs of the Tribe, including the outlawing of polygamy, the control of marriage, divorce, adoption, etc. However, the early legislation was found to be inadequate to meet modern requirements, lacking either in form or scope and, with the development of a Tribal Legal Department, much of the previous legislation is being superseded at present by regulations patterned after those of the surrounding States.

With regard to the internal affairs of the Tribe, the following ordinances have been enacted in recent times: In 1954 the Council adopted a resolution urging enforcement of the Federal American Antiquities Act, to thus protect from damage objects of archaeological and historical interest on the Reservation. In 1955, a resolution was adopted to establish a mine safety code, providing for closure of unsafe mines. In 1956 the Tribal Council acted to provide for the extradition of criminals from the Reservation, and adopted an additional ordinance to provide for the exclusion of trespassers and undesirable persons from the Navajo Country, (for crime, immorality, unauthorized activity, etc.). Also, in 1956, the Tribe adopted an ordinance regulating tribal marriage in detail, and an act to establish the property and contractual rights of husband and wife. In the same year, to protect the Tribal Credit Program, the Council made it a criminal offense to sell, encumber or conceal chattels subject to lien, and provided for the execution of judgments by the Navajo Courts in civil cases.

A year later, in 1957, regulations were adopted for the care, custody and control of abandoned, neglected and delinquent Navajo children, and a uniform adoption procedure was established.

In former times marriage, divorce, care of children and similar internal matters were regulated by Tribal Custom, but with today's rapidly changing customs and requirements, the old way no longer suffices. As a bridge between the traditional and the non-Navajo laws and regulations governing human relationships the Navajo Tribe is adopting its own legal controls patterned after those of its non-Navajo neighbors, but still recognizing requirements peculiar to Navajo society. To go from the traditional Navajo to the formalized legal system developed by Western Society without an intermediate step would be difficult and frustrating to many of the Navajo people, although ultimate assimilation to national customs and institutions is the expressed goal of the Tribal Council. The recently adopted legal controls over internal affairs is a long step in the direction of such assimilation, and not only is it a reflection of progress in that direction, but it has brought with it the need for revision of the Tribal Law and Order Code, the reorganization of the Reservation court system and the development of new court procedures adapted to present day requirements. Such revision and reorganization was authorized by the Council in 1956.

In the field of commerce the Tribe took no action on its own accord to apply regulations until recent years. In former times the Reservation trading post system was licensed by the Federal Government as a necessary aspect of the Reservation barter-economy. It was not until 1947 that the Tribal Council began to consider, in their capacity as landlords, the question of controlling Reservation trading to demand payment of rental on areas of tribal lands used for trading purposes, and to establish regulations deemed necessary for the protection of the Navajo people. Following a period of controversy and negotiation with the trading interests, a set of regulations generally acceptable to both the Tribe and the Reservation traders was approved in 1955. The regulations provide for a rental based on 1½% of the gross annual receipts (or a minimum of $300 per annum); they provide for tribal inspection of the books kept by Reservation Traders; they govern the transfer of trading property, and limit ownership of multiple trading posts in the interest of free competition and the exclusion of monoply.

During the war years the Vanadium Corporation of America operated mines on the Navajo Reservation, and after World War II the heavy demand on the part of the Federal Government for uranium led to increased prospecting and mining activity on Navajo Tribal land. This fact was reflected in Council action in 1948 to protect the interests of individual Navajos in connection with mineral development by authorizing the Advisory Committee to develop necessary Reservation mining procedures. In 1949 the Council acted to amend the mining procedures, and in 1951 the Advisory Committee was authorized to draft a set of Reservation mining regulations. In the same year the Council authorized the leasing of a tract of land near Shiprock, New Mexico as the site for the first Uranium Processing Mill located on the Reservation.

As mining activity in the Navajo Country gained impetus, the Tribe acted, in 1953, to establish the position of Tribal Mining Engineer. The latter, charged with the responsibility for inspections of mining and milling operations and enforcement of mining regulations, also guides the Tribal Council in the development of Reservation mineral resources. In 1955, the Tribal Council acted to authorize negotiation of leases for two additional Uranium Processing Mills, one located near Tuba City, Arizona and the other on the Arizona side of the Colorado River near Mexican Hat, Utah.

In July of 1923 a provisional Navajo Council authorized the Secretary of the Interior to lease Reservation lands for oil and gas purposes and these resources, especially oil, have since provided the funds necessary for the Tribal development that has come about in recent years. In 1953, the Tribal Council granted a right of way across a portion of the Reservation for the construction of a gas pipeline by the El Paso Natural Gas Company.

In accordance with regulations of the Department of the Interior tracts of Reservation land requested for lease by oil and gas interests must be advertised and leased to the highest bidder at a public lease sale. To gain control of desired tracts of tribal land for oil and gas exploration and development purposes, companies have offered cash bonuses ranging from less than a dollar to several thousand dollars (actually $0.05 to $3,100) an acre. The highest bidder normally receives the right to lease the acreage bid upon for the bonus plus a $1.25 per acre annual rental plus a "standard" production royalty of 16⅔% in lieu of the 12½% previously used as a minimum rate. The royalty rate is fixed at a higher level in specific instances where competition is strong.

In an effort to reestablish a firm economy on the Reservation during the post war period, the Council, in 1948, established a $100,000 loan fund to provide credit to Navajos, especially to veterans, for education, business and other productive purposes.

Later in the same year regulations were developed to govern the Tribal Lending Program with provision for collecting overdue loans from delinquent borrowers, and the Tribe filed application for $500,000 of Federal funds to be used for credit purposes in a revolving loan program. The controls proved inadequate to assure necessary collections and, in 1953, it was necessary to temporarily close down the program pending collection of accounts due and the formulation of a more effective plan of operation than that developed in 1948. The revised plan was worked out and approved by the Tribal Council in 1955, and the credit program was subsequently reopened. The procurement of credit from commercial sources is encouraged wherever possible, but in some instances lack of acceptable or sufficient collateral make it impossible for Navajos residing on the Reservation to obtain credit except from the Tribe itself through the Revolving Loan Program.

In 1955, the Council authorized the establishment of the first Reservation Bank at Shiprock, N. M. in the form of a Branch of the 1st National Bank of Farmington. In 1956 the Council granted permission to the Valley National Bank of Arizona to conduct a survey to determine the feasibility of establishing a branch somewhere on the Reservation. Other banks also evinced an interest in the Reservation, but it was not until February, 1962, that the Tribal Council acted to approve the establishment of a Branch Bank at Window Rock by the First National Bank of Holbrook.

As long ago as 1942 the Navajo Tribal Council authorized the establishment of the position of Manager of Tribal Industries—at that time a flour mill, tannery and sawmill. Of these only the Sawmill survived to become a flourishing industry.

In 1949 a large housing project, built by the War Department to quarter workers at the Fort Wingate Ordnance Depot during World War II, was transferred to the Navajo Tribe to be thereafter operated as a tribal enterprise, and the Tribe was looking toward development of other enterprises to create employment opportunities for Navajo labor. To meet the need for industrial development the Advisory Committee, in 1949, was named as a Business Management Committee, and the Bureau approval of the Tribe's application for $500,000, to be used for revolving credit purposes, opened the way for enterprise development. In 1950 the Tribe became officially an employer under the Social Security Act and, a year later, in 1951, the Tribe borrowed $35,000 from the loan fund for establishment of a concrete block plant and $80,000 for construction of a Motel at Shiprock and other small industries followed. In 1952 the Council authorized the Advisory Committee to negotiate with the Bureau of Indian Affairs a business management agreement defining clearly the division of responsibility between the Tribe and the Bureau for the establishment and management of Tribal Enterprises. The agreement was approved by the Tribe in September of 1952 and, the following year, the position of Tribal Business Manager, as authorized in the Tribe-Bureau agreement, was established.

After a period of experimentation with small tribal enterprises which failed to provide the employment opportunities required, the tribe terminated its Clay Products, Leather Products, Wool Products and Wood Products Industries in 1955, and, guided by Commissioner Emmons, himself a businessman, began to look to the establishment of major industries in the Reservation area by nationally known companies. In the same year the Council appropriated $300,000 for industrial development purposes on or near the Reservation, and began to formulate plans for the organization, direction and operation of Tribal industry. They established, in 1956, an office of industrial development and business management, named an able manager, and terminated the Tribe-Bureau agreement of 1953, to replace it with a broader agreement which would more adequately reflect the changed policy away from small Tribal enterprises and toward major industries capable of employing large numbers of people. Likewise, in 1956, the Council authorized the establishment of a low cost housing area in Shiprock, New Mexico.

In 1957, the Council delegated its full authority over tribal business enterprises to the Advisory Committee, and authorized a Tax Study of the

Navajo Reservation to determine the extent of liability, if any, for certain types of Reservation taxes imposed or proposed by the States.

For a decade or more the Tribal Sawmill has done well and has grown to become a thriving business; yet the present milling industry is capable of utilizing only a portion of the tribal timber resource. The remainder goes to waste. With this knowledge, in 1950, the Council authorized a timber survey, looking toward the possibility of expanding the Reservation lumber industry. A year later the existing sawmill was enlarged to include kilns for the drying of lumber and certain other items of major machinery to thus increase its efficiency and productivity. In 1953 the timber survey was completed, a master forest management plan was elaborated providing for utilization of Reservation timber on a sustained yield basis, and the Council appropriated $32,000 to secure the services of sawmill and timber development consultants to devise necessary plans for an expanded tribal lumber industry. The consultants completed the work and submitted their plans to the Council in March 1957, but final action was deferred for careful study. The plan developed is based on an average annual cut of 34,535,000 board feet for the remainder of the first cutting cycle—i. e. until about 1978,[15] and recommended the construction of a new centralized sawmill at a cost of more than $11,000,000 (including cost of log production equipment ($278,300). Manufacturing facilities ($8,047,840) and transportation system ($2,910,-000)). In addition to the milling plant proper, there would be an additional investment in the development of a modern community at the new mill site, necessary roads, and other adjuncts.

For many years, as we pointed out in foregoing paragraphs, the Navajo people have struggled with problems involving land status, especially in the "checkerboard" area of mixed allotted, public domain, railroad, state and non-Indian sections in western New Mexico, in areas of Navajo occupancy in Southern Utah and elsewhere. For this reason among others there was a felt need for the establishment of a tribal office to carry out necessary research and develop information relating to the land upon which the Navajo people live, for use by the legal and other departments of the tribal organization in seeking solutions to land problems, and to provide intelligent advice to the Tribal Council. As a result, in 1954, the Council established an Office of Land Use and Surveys and, a year later, adopted a uniform land acquisition policy. The latter relates to the consolidation of checkerboard holdings through exchange or purchase, the addition of grazing lands adjoining the Reservation through purchase from private owners, the provision of land sites for tribal industries, the reduction of crowded living conditions on the Reservation, etc.

In 1956, in the interest of opening the Reservation area to travel, commerce and industry, the Council adopted a resolution expressing tribal opposition to the roadless or wilderness areas established by the Department of the Interior in the 1930's and, in another act in the same year, the Council urged congressional legislation to provide for consolidation of Navajo land holdings in New Mexico through exchange. In March of 1957 the Council approved the exchange of a 53,600 acre area of Reservation land in northwestern Arizona as a site of the Glen Canyon Dam, for an equivalent area of land in Southern Utah.

In 1950 a period of severe drouth began in the Southwest, working an additional hardship on those people who were primarily dependent on Reservation resources. In an effort to alleviate the drouth, the Tribal Council authorized the use of $10,000 of tribal funds to finance a cloud seeding project in the hope of producing rain. Although lack of moisture-bearing clouds doomed the experiment to failure it stands as a monument to the openminded, progressive nature of the Navajo Tribe. In cooperation with the Bureau of Indian Affairs the Tribe assisted in the hauling of water to Reservation livestock, provided Tribal funds for purchase of supplementary livestock feed, and in 1953, appropriated $250,000 for water development purposes. In subsequent years the Tribe appropriated additional funds for this purpose, to a total of $1,000,000. And, in 1957 the appropriation of $3,000,000 over a five year period for water development was authorized by the Council as an aspect of long range planning.

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[15] Plus 15,000,000 board feet of over mature timber to be cut and processed by the present mill for a 10-year period after the new mill begins work.

In 1953, the Council authorized the establishment of District Grazing Committees, composed of members of the Tribe, to exercise responsibility in connection with all grazing matters, including revision of the Reservation grazing regulations, a subject long in controversy. The Grazing Committees worked closely with Bureau Range Technicians to finally develop a set of regulations acceptable to the Secretary of the Interior, and the Council approved them formally in 1956.

In 1956, continuation of drouth conditions made it necessary to secure and distribute feed grain to stockowners for the subsistence of small family herds (100 or less sheep units). Grain was secured at no cost through the Department of Agriculture, and the Tribe appropriated $600,000 for purposes of administering the program, including distribution of the emergency feed. The major task of setting up necessary administrative machinery, arranging for unloading and trucking, hiring necessary staff, etc. was accomplished in a few weeks time under the able leadership of the Tribal Secretary-Treasurer. Since 1956, feed grain has been made available annually on the Reservation under a similar arrangement and the Tribe has appropriated funds to purchase emergency feed for off-Reservation stockowners who are not eligible under the regular program. (See Section entitled Soil and Moisture Conservation.)

Although long interested in the possibility of a major irrigation project in the area of Shiprock, New Mexico, the Tribal Council became highly active in this connection in 1950, with passage of the Long Range Act and, in 1951, the Tribe obtained the services of an Engineer to make an independent study of the proposed Shiprock (Navajo) Project. After 1955, the Council worked closely with non-Navajo interests in the San Juan Basin in an effort to secure congressional approval of the Upper Colorado River Storage Project of which the Reservation development would be a part, and the Tribe made a substantial contribution of money for the support of the Aqualantes, a promotional organization.

In 1957 the Council adopted a resolution authorizing the Advisory Committee to withdraw, permit and lease tribal land for school purposes, with the provision that such land may be used on a rent free basis so long as Tribal land shall remain exempt from taxation. This action of the Council makes acquisition of school sites easier and encourages school construction on the Reservation. In addition, a resolution was adopted urging the early provision of school facilities necessary to serve the needs of the Navajo population and the Tribal Education and Health Committees were expanded from 3 to 5 members to thus provide full representation on a sub-agency basis.

From the creation, in 1957, of the Tribal office of Executive Secretary there was no Tribal Treasurer until that office was reestablished by Council resolution on May 23, 1958. In addition, a skilled title examiner was added to the Tribal staff, within the Department of Land Use and Surveys, to assist in the solution of problems involved in the reactivation of old mining claims in areas of oil and gas development, and in the correction of survey errors. On July 25, 1958, the Council appropriated $100,000 for the establishment of a Tribal Park in the Monument Valley area.

In December of 1957, the Council endorsed a Bill proposed for submittal to Congress, providing for the Glen Canyon Dam-McCracken Mesa land exchange, and authorizing the Chairman of the Council and the General Counsel for the Tribe to accept and agree to such amendments as might become necessary before enactment of the Bill. The Council had previously authorized the exchange by resolutions adopted in January and in March of 1957.

In February 1958, the Council again requested extension of the effective date of that portion of the Grazing Regulations dealing with trespass (25 CFR 152.13(b)), to April 25, 1959, committing the Tribe, with the cooperation of the Bureau of Indian Affairs, to conduct a human dependency survey on the Reservation as a basis for future range management planning. The request was granted by the Secretary of the Interior on June 27, 1958, but the dependency survey was never carried out.

The Council also authorized the purchase of a bull herd, to be used in a program designed to improve Reservation cattle. This action has been approved and the breeding stock is kept on the Tribally owned Bar-N-Ranch.

Since 1956, oil and gas development has taken place to such an extent in the Four Corners area that the Council found it necessary to develop and approve a procedure for the compensation of individual Navajos who sustain losses through damage to livestock or improvements in the oil and gas field area. Also, to assure the greatest possible income from oil and gas, the Tribal Council acted on August 8, 1957, to provide for revision of oil and gas leasing regulations. The requirements adopted by the Advisory Committee, to which the Council delegated authority to act, included a 16⅔ percent royalty rate on certain specified tracts, while the rate was left at the usual 12½ percent on about 370,000 acres of other land. The new regulations also provide for rejection of high bids by the Tribe when such action appears to be in their best interest, and provides a greater period of time between release of advertisements and bid opening dates than had previously been allowed. The latter action encourages competition and allows ample time for careful study by interested companies.

On August 7, 1957, the 10-year contract with Norman M. Littell as General Counsel and Claims Attorney expired, and the Council acted to extend the contract for an interim period pending negotiation of a new 10-year contract. The new contract was completed and approved by the Commissioner of Indian Affairs a few months later. On February 4, 1958, the Council amended the Tribal Attorney contract to add a new Assistant General Counsel and a new associate attorney to the staff of the Tribal Legal Department at Window Rock. The tempo of Tribal legal business had grown with oil and gas development and with such projects as the Glen Canyon Dam, to the extent that additional personnel were required. In addition, on August 28, 1958, the Council adopted a resolution providing for the reorganization of the Tribal Legal Aid Bureau, placing it under the supervision of the Tribal Legal Department instead of the Chairman of the Tribal Council where supervisory responsibility formerly rested.

There has long been a crying need on the Reservation for more adequate court and jail facilities, but Congress has not been willing to appropriate necessary construction funds for this purpose. Accordingly, on September 18, 1957, the Council appropriated $545,000 for major construction at Tuba City, Chinle and Shiprock, and for minor construction at other Reservation locations. Also, in connection with law enforcement, in February of 1958 the Council acted to provide for the release of prisoners under bail bond from Reservation jails, where such persons are held for subsequent appearance before the local courts and, on May 19 during the annual budget session the Council acted to create the Tribal office of Superintendent of Police. In view of the fact that Reservation law enforcement was almost totally supported by the Tribe, the Council decided that the supervision of the Reservation police might well be included as a Tribal function. However, the responsibility for law enforcement is vested in the Federal Government and it was necessary for the Council to request, on July 18, 1958, that certain specified responsibilities for law enforcement, vested in the Secretary of the Interior, be transferred to the Navajo Tribe. The same action of the Council provided for adoption of 25 CFR, Part II, as a temporary Tribal law code pending necessary revisions thereof, and established a Tribal Department of Police to function under a Tribal Superintendent of Police.

Further, and in connection with law enforcement in the Navajo Country, the Council acted on August 7, 1957, to establish Navajo Courts of Indian Offenses at Canoncito and Puertocito (Alamo), to be served on a circuit basis by one of the elected Navajo judges as directed by the Chief Judge. And on July 29, 1957, the Council adopted regulations to govern the care, custody and control of abandoned, neglected and delinquent Navajo children.

On December 12, 1957, the Council approved in principle a proposed Bill to authorize construction of the Navajo Irrigation Project, and authorized the Chairman of the Tribal Council to accept necessary amendments to the proposed legislation, providing that (1) the acreage be maintained at a minimum of 110,630 acres, and (2) that the average annual diversion of water from the San Juan River be not less than 508,000 acre feet. Also, with regard to Reservation irrigation projects, the Tribal Council acted, on September 18, 1957, to accept financial responsibility for the payment of operation and maintenance costs with the understanding that equipment owned and used in that connection by Navajo Agency be transferred to the Tribe, and certain charges outstanding against the Tribe by the Federal Government be cancelled. On February 14, 1958, the Council appropriated $91,249 for operation and maintenance during the remaining half of the fiscal year, and in May of 1958, the Tribal budget (for 1959) was approved to include the full cost of maintenance and operation of all Reservation irrigation projects in fiscal year 1959. The Tribe continued to appropriate funds for O & M purposes and, in 1960, the Congress passed legislation transferring Reservation projects to the Tribe. The latter will assume full charge and responsibility for O & M as soon as a memorandum of agreement can be signed by the Secretary of the Interior and the Council Chairman.

For many years, and especially since the discovery of the Four Corners Oil Field, the Navajo Tribe has been interested in the improvement of Reservation roads. During 1958, the opportunity presented itself for construction of a bridge across the San Juan River near the point of its confluence with Montezuma Creek, to be financed partly by the Bureau of Indian Affairs and partly by interested oil and gas companies operating in the Aneth area. The Tribe agreed to act as collection agent with reference to the contributions committed by the several interested companies, and to expedite construction the Tribal Council advanced the sum of $250,000. This was the total amount committed by contributors to the project, but the Tribal action in advancing funds assured early completion of the project. Also, in November of 1957, at a hearing before the Joint Committee on Navajo-Hopi Indian Administration, the Tribe urged Congress to complete construction on Reservation Routes 1 and 3. As a result, Congress enacted the Anderson-Udall Bill adding $20,000,000 to the Long Range Act for road construction purposes.

At the August 1958 session of the Council, the Tribe adopted important and far-reaching labor legislation. This included a formal statement of labor policy (1) prohibiting solicitation of membership by labor unions on the Reservation and proscribing any and all types of union activity within the Reservation boundaries, (2) declaring a Right to Work Law for the Reservation, and (3) making the Tribal labor policy applicable to any and all contracts entered into for reservation projects after the effective date of the resolution. The policy statement further provided for the punishment of Indian offenders by the Reservation courts, and for expulsion from the Reservation of non-Indians violating Council labor laws. Another Council ordinance specifically denied permission and authority to labor unions to solicit membership or conduct any other incidents or adjuncts of unionization on the Navajo Reservation, on the premise that such activity constitutes a business or activity which the Council may lawfully restrict on the land under its jurisdiction. The Council action in debarring unions on the Reservations is based on the premise that the level of education and vocational training of Navajo workers is not yet sufficiently high to permit them to benefit from union membership on a par with non-Navajo workers. On the premise that the Navajo Tribal Council has the sole right to legislate for the Reservation area, the Tribe contested the applicability of the National Labor Relations Act to the Reservation area. The case was lost by the Tribe in Federal Court in 1961, and the Supreme Court rejected a petition for certiorari. A strike which stopped construction work on the Four Corners (Arizona Public Service) Power Plant in June, 1961, promised to bring this controversy to an early conclusion. Previously to the Court decision supporting the applicability of the National Labor Relations Act, and the jurisdiction of the NLRB, to the Reservation, the Tribal Labor Ordinance had been enforced by the Navajo Police Department.

In addition to the labor legislation in reference above, the Council also adopted a resolution committing the Navajo Tribe to conform as closely as possible to the child labor laws in force in surrounding States, and authorizing the Chairman of the Council to promulgate protective regulations wherever necessary in the interest of children on the Navajo Reservation.

In November, 1960, the Council adopted two related resolutions designed to afford further protection for Navajo children. Of these, one established Tribal policy relative to the adoption of orphaned, abandoned or neglected Navajo children, and the other specified procedure to be followed in such adoption.

In October, 1958, the Council adopted a resolution, subsequently amended in certain details, providing for the appointment, rather than the election, of Tribal Judges. At the same session, the Legal Aid service was reorganized; the employment of an Oil, Gas, and Utility Consultant, under a 5-year contract, was authorized; the Council recommended to the Secretary of the Interior that the McCracken Mesa area be transferred to the Tribe in exchange for the Glen Canyon Dam site; and the Council adopted an ordinance designed to facilitate enforcement of Tribal compulsory education laws.

In August, 1959, the Council adopted a plan for the reorganization of the Executive Branch of the Tribal Government, and established a Tribal Judiciary Committee. In November of the same year the Tribal Scholarship Trust Fund was increased from $5,000,000 to $10,000,000.

In January, 1960, the Council authorized the Chairman of the Tribal Council to collaborate with state officials in the interest of removing obstacles to the conduct of state and national elections on the Reservation in view of the apparent lack of jurisdiction of state courts and law enforcement agencies in the Navajo Country.

In November, 1959, the Council established the Navajo Tribal Utility Authority, comprising a Committee of five members, including three Council delegates. This group was charged with responsibility for the control of Reservation utility systems, including the adoption or amendment of rates. In January of 1959, the Advisory Committee had been authorized to study and adopt the more feasible of three alternative plans for the provision of electricity to Shiprock as a Tribal enterprise, and the emergence of the Tribal Utilities authority a few months later was a result of this action, but its composition was not determined until November of that year.

In July, 1960, the Council authorized its Chairman to execute an indenture of lease agreement with the Arizona Public Service Company, thus paving the way for construction of a $100 million thermo-electric plant on the Reservation near Fruitland, New Mexico, and appurtenant transmission systems. Actual construction commenced about January, 1961.

In August, 1960, the Council appropriated $390,000 for the construction of a gas system to serve the Window Rock, St. Michaels, Fort Defiance areas, to be known as the Black Creek Valley Natural Gas System. In the same month, the Council authorized the Advisory Committee to determine the feasibility of making application for a loan from the Rural Electrification Authority for expansion of the tribally controlled electrification program in the Shiprock, and in other Reservation areas, and in February 1961, the Chairman was instructed to proceed in the submittal of the necessary loan application.

In an effort to control the spread of tuberculosis and other contagious diseases, the Council acted in January, 1959, to request the U. S. Public Health Service to adopt a procedure for the involuntary commitment for treatment of Navajos suffering from contagious diseases of serious types.

In January, 1960, a Committee of the Council was established to collaborate with the Tribal attorneys in the codification of Tribal laws.

Lastly, in the fall of 1960, a trial was conducted at Prescott, Arizona, by the special 3-judge court established by Congress on July 22, 1958 (P.L. 85-547) to resolve the Navajo-Hopi Boundary Dispute (Healing v. Jones). The Navajo Tribe seeks to establish its claim to a portion of the Executive Order Extension of 1882.

The recent history of the Navajo Tribe is one which depicts the Navajo people as a highly industrious, adaptable and progressive group moving ahead jointly with the Federal Government and the states toward the solution of serious social and economic problems. The Tribe is keenly aware of the need for cultural change and is consciously thinking and planning for the future, utilizing Tribal funds for the promotion of its plans for improvement rather than distribute them on a per capita basis. The tribal leadership has taken the position that, if tribal money is invested in resource development, higher education for Navajo youth, and similar programs, the economic potential of the Reservation can be enhanced and the trained manpower necessary for full exploitation of increased opportunities can be developed; distributed on a per capita basis, Tribal funds would be quickly dissipated and little lasting benefit would derive from the small per capita shares involving less than $1,000 for each member.

THE UNITED STATES INDIAN SERVICE

A Sketch of the Development of the Bureau of Indian Affairs and of Indian Policy.(1)

From early colonial times until 1871 the British, the Colonial and later the United States government looked upon Indian Tribes as sovereign nations, to be dealt with by treaty or through the medium of a diplomatic service. With their numerical inferiority in early times, the position of the colonists was precarious and, although an effort was made to regulate relations between themselves and the Indians in the interest of peace, no attempt was made to govern the internal affairs of the Tribes. Just before the American Revolution, and just after the close of the French and Indian Wars, the British established two superintendencies of Indian Affairs, the jurisdictions of which corresponded to the areas occupied by the Northern and the Southern Colonies. The Superintendents functioned as ambassadors of a foreign power, charged with the duty of observing events, negotiating treàties and generally maintaining peaceful relations between the Indians and the border settlers.

As the years passed, a transition gradually took place in the course of which the colonies grew into a nation and the balance of power shifted from the Indians to the Whites, creating across the years a changing pattern of relaionships between the two groups. That changing pattern is amply reflected in the development, composition and function of the United States Bureau of Indian Affairs, with the varied policies, attitudes and objectives that characterized it in its effort to cope with the ever-changing problem of Indian relationships through the years.

One of the first Acts of the Continental Congress, in 1775, was to declare its jurisdiction over Indian tribes by creating three departments of Indian Affairs, a Northern, a Southern and a Middle department, with Commissioners at the head of each charged with duties comparable to those of the earlier Superintendents. The Commissioners chosen for the Middle department were Benjamin Franklin, Patrick Henry and James Wilson, an indication of the importance in which the positions were held.

After the Revolution, in 1786, the Congress of the Confederation established two departments for Indian affairs, the Northern—north of the Ohio River and west of the Hudson River, and the Southern—south of the Ohio River, with a Superintendent at the head of each, reporting to the Secretary of War. Each of the two Superintendents had the power to grant licenses to trade and live among the Indians.

When the Federal Government was reorganized under the new Constitution in 1789, the War Department was established, with Indian Affairs continuing as a responsibility of the Secretary of War. The First Congress and the First President recognized the need for remedying the problems created by conflict between Indian and White interests, serious even then, and National policy, already set forth in the Northwest Ordinance of 1787,

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[1] Adapted largely from Chapters 2-4, inclusive of Felix S. Cohen's **Handbook of Federal Indian Law"** pub. 1945, GPO, for the period extending from colonial times to 1935. For the years subsequent to 1935, source material is identified in the text or by appropriate footnotes. The account contained in this section was prepared by Robert W. Young, Assistant to the General Superintendent, Navajo Agency, with the generous assistance of Leonard Ware, Program Officer, Bureau of Indian Affairs, whose deep knowledge of the subject field made it possible to correct certain errors contained in the source material utilized for the period prior to 1935.

was reaffirmed in the Act of August 7, 1789, to the effect that "The utmost good faith shall always be observed towards the Indians; their land and property shall never be taken from them without their consent; and in their property, rights and liberty, they shall never be invaded or disturbed, unless in just and lawful wars authorized by Congress; but laws founded in justice and humanity shall from time to time be made, for preventing wrongs being done to them, and for preserving peace and friendship with them."[2]

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[2] Some insight into early frontier attitudes toward, and relationships with, the Indian Tribes is provided by Isaac Weld, Jun., who visited the States and parts of Canada in 1795, 1796 and 1797, and whose letters were published in London in 1807 under the title of "Travels Through the States of North America and the Provinces of Upper and Lower Canada during the years 1795, 1796 and 1797 (pp. 199-201).

"Acceptable presents are generally found very efficacious in conciliating affections of any uncivilized nation: they have very great influence over the minds of the Indians; but to conciliate their affections to the utmost, presents alone are not sufficient; you must appear to have their interest at heart in every respect; you must associate with them; you must treat them as men who are your equals, and in some measure, even adopt their native manners. It was by such steps as these that the French, when they had possession of Canada, gained their favour in such a very eminent manner, and acquired so wonderful an ascendency over them. The old Indians still say, that they never were so happy as when the French had possession of the country; and, indeed, it is a very remarkable fact, which I before mentioned, that the Indians, if they are sick, if they are hungry, if they want shelter from a storm, or the like, will always go to the houses of the old French settlers in preference to those of the British inhabitants. The necessity of treating the Indians with respect and attention is strongly inculcated on the minds of the English settlers, and they endeavor to act accordingly; but still they cannot banish wholly from their minds, as the French do, the idea that the Indians are an inferior race of people to them, to which circumstance is to be attributed the predilection of the Indians for the French rather than them; they all live together, however, on very amicable terms, and many of the English on the frontiers have indeed told me, that if they were but half as honest, and as well conducted towards one another as the Indians are toward them, the state of society in the country would be truly enviable.

On the frontiers of the United States little pains have hitherto been taken by the Government, and no pains by the people to gain the good will of the Indians; and the latter, indeed, instead of respecting the Indians as an independent neighboring nation, have in too many instances violated their rights as men in the most flagrant manner. The consequence has been, that the people on the frontiers have been involved in all the calamities that they could have suffered from a vengeful and cruel enemy. Nightly murders, robberies, massacres, and conflagrations have been common. They hardly ventured to stir, at times, beyond the walls of their little habitations; and for whole nights together have they been kept on watch, in arms, to resist the onset of the Indians. They have never dared to visit their neighbors unarmed, nor to proceed alone, in open daytime on a journey of a few miles. The gazettes of the United States have daily teemed with the shocking accounts of the barbarities committed by the Indians, and volumes would scarcely suffice to tell of the dreadful tale.

It has been said by persons of the States, that the Indians were countenanced in committing the enormities by people on the British frontiers, and liberal abuse has been bestowed on the government for having aided, by distributing amongst them guns, tomahawks, and other hostile weapons. That the Indians were incited by presents, and other means, to act against the people of the colonies, during the American War, must be admitted; but that, after peace was concluded, the same line of conduct was pursued toward them, is an aspersion equally false and malicious. To the conduct of the people of the States themselves alone, and to no other cause, is unquestionably to be attributed the continuance of the warfare between them and the Indians, after the definitive treaty was signed. Instead of them taking the opportunity to reconcile the Indians, as they might easily have done by presents, and by treating them with kindness, they still continued hostile toward them; they looked upon them as indeed they still do, merely as wild beasts, that ought to be banished from the face of the earth; and actuated by that insatiable spirit of avarice, and that restless and dissatisfied

> turn of mind, which I have so frequently noticed, instead of keeping within their territories, where millions of acres remained unoccupied, but no part, however, of which could be had without being paid for, they crossed their boundary lines, and fixed themselves in the territory of the Indians, without ever previously gaining the consent of these people. The Indians, nice about their boundary line beyond any other nation, perhaps, in the world, to have such extensive dominions in proportion to their numbers, made no scruple to attack, to plunder, and even to murder these intruders, when a fit opportunity offered. The whites endeavored to repel their attacks, and shot them with as much unconcern as they would either a wolf or a bear. In their expeditions against the white settlers the Indians frequently were driven back with loss; but their ill success only urged them to return with redoubled fury, and their well-known revengeful disposition leading them on all occasions to seek blood for blood, they were not merely satisfied with murdering the whole families of the settlers who had wounded or killed their chiefs or warriors, but oftentimes, in order to appease the manes of their comrades, they crossed their boundary line in turn, and committed most dreadful depredations amongst the peaceful white inhabitants in the States, who were in no manner implicated in the ill-conduct of the men who had encroached upon the Indian territories. Here, also, if they happened to be repulsed, or lose a friend, they returned to seek fresh revenge; and as it seldom happened that they did escape without loss, their excesses and barbarities, instead of diminishing, were becoming greater every year. The attention of the government was at last directed towards the melancholy situation of the settlers on the frontier, and the result was, that Congress determined that an army should be raised, at the expense of the States, to repel the foe."

In the same year, Congress appropriated $20,000 for the purpose of "negotiating and treating" with Indian tribes, and in 1790 it passed an Act for the purpose of regulating trade and intercourse with Indian tribes. The latter provided for the licensing of Indian Traders, and conferred extensive regulatory powers on the President. During the period 1796 to 1822 trading houses were maintained under Government ownership for the purpose of supplying Indians with necessary goods at a fair price, and for the purpose of offering a fair price for Indian furs in exchange. The Agents in charge of the trading houses were appointed by the President and were responsible to him. In 1806 the office of Superintendent of Indian Trade was established, its duties including the purchase and charge of all goods intended for trade with the Indian nations.

In 1822 the office of Superintendent of Indian Trade was abolished, and Secretary of War Calhoun created the Bureau of Indian Affairs by order of March 11, 1824, placing at its head Thomas L. McKenney, who formerly had been Superintendent of Indian Trade. Mr. McKenney's new duties included the administration of the "Civilization Fund" established by Act of Congress on March 3, 1819, to provide a permanent annual appropriation of $10,000 for the express purpose of "introducing among the Indians the habits and arts of civilization."

Between 1824 and 1832, confusion appears to have reigned in the conduct of Indian Affairs, but by Act of July 9, 1832, Congress authorized the President to appoint a Commissioner of Indian Affairs to manage all matters arising out of Indian relations, subject to the direction of the Secretary of War and to regulations prescribed by the President. In 1834, an Act of Congress established a Department of Indian Affairs. It provided for the employment of Agents, Sub-Agents, Interpreters and other employees, and was, to a large degree, a reorganization of the field force of the War Department with relation to Indian Affairs.

Fifteen years later, in 1849, Congress created the Home Department of the Interior, the Bureau of Indian Affairs at that time passing from military to civil control. The Act provided that "the Secretary of the Interior shall exercise the supervisory and appellate powers now exercised by the Secretary of the War Department, in relation to all the Acts of the

Commissioner of Indian Affairs." After 1849 Congress debated for years whether or not to transfer the Indian Bureau back to the War Department.

Following the Civil War, in 1869, an effort was made to correct mismanagement in the purchase and handling of Indian supplies through the creation of a Board of Indian Commissioners appointed by and reporting to the President. It was to be composed of not more than 10 men serving without compensation, and was to exercise joint control with the Secretary of the Interior. This board was not abolished until 1933 when President Roosevelt issued an Executive Order providing that the affairs of the board be terminated as an economy measure. Since that time the Secretary of the Interior has supervised public business relating to Indians, the management of Indian Affairs, and all matters arising out of Indian relations.

Elbert Herring became the first legislatively authorized Commissioner of Indian Affairs in 1832, and during the century or more ensuing, the post has been held by almost 40 individuals representing a wide range of opinions regarding the responsibilities of that office. To a great extent their views, as set forth in their official and unofficial writings, reflect the history of our national expansion. The Indian Service began as a diplomatic service to manage negotiations between the United States Government and the Indian tribes, the latter considered as domestic dependent nations, and by a gradual process of jurisdictional aggrandizement on the one hand and voluntary surrender of Tribal powers on the other, the Indian Service reached a point at which nearly every aspect of Indian life was subject to the almost uncontrolled discretion of its officials. Only in recent years has this approach to the administration of Indian Affairs undergone radical change.

The reports of the heads of the Bureau of Indian Affairs from 1824 when the Bureau was established to the present provide a graphic account of changing policies, and provide an excellent commentary on the attitudes and philosophies of the American people relative to Indian problems. In 1825 Mr. Thomas L. McKenney, as head of the Office of Indian Affairs, wrote to the effect that it was the policy of the Government to guarantee "lasting and undisturbed possession" of new lands in the Indian country beyond the boundaries of Missouri and Arkansas to those Indians whose land titles had been extinguished and who had decided to move westward in an attempt to re-establish themselves rather than try to stand against the tide of White expansion. This was a period when our nation was growing, and when White men were seeking new lands beyond the frontiers—lands to which Indian groups had formerly held title, in many instances by treaty. The Indians were induced, by various means, to relinquish their lands and move westward, and under Jacksonian policy the Government relied heavily on the use of the military to accomplish removal of those who elected not to do so voluntarily.

Educational policy of the period was aimed at the "civilization" of the Indian, largely through manual training, agriculture and "the mechanic arts." As early as 1826, the head of the Indian Bureau urged an increased appropriation for Indian education in the belief that increased school facilities would ultimately be more effective than the military in achieving the objectives of a peaceful relationship with the Indian. However, effective education and the bodily removal of entire Indian tribes from their traditional homeland did not always stand in a complimentary relationship to each other.

In 1851, Commissioner Luke Lea wrote to the effect that "on the general subject of the civilization of the Indians, many and diversified opinions have been put forth; but, unfortunately, like the race to which they relate, they are too wild to be of much utility. The great question, how shall the Indians be civilized, yet remains without a satisfactory answer. The magnitude of the subject, and the manifold difficulties inseparably connected with it, seem to have bewildered the minds of those who have attempted to give it the most thorough investigation."

Commissioner Lea went on to point out that he believed that the civilization of the Indian should provide for "their concentration, their domestication and their ultimate incorporation into the great body of our citizen population."

As the economic requirements of the White population grew, the land holdings of the Indian tribes were reduced to reservations, and the latter gradually shrank in size as the westward expansion of our new nation progressed. White men, interested in intensive agricultural use of the land, could not see the jusification of Indian tenure of large areas for purposes of hunting and, small scale farming. Consequently, Commissioner Lea felt that it would be preferable to concentrate Indian tribes to facilitate the assimilatory process to which he referred as "civilization." His recommendation that Indians be ultimately incorporated into the citizenry of the country was a marked departure from the previous policy of removal and segregation.

Domestication of Indians was accepted as a part of our policy when, in 1853, Commissioner Manypenny objected to the practice of permitting Indian tribes to retain portions of their Tribal domain as Reservations after selling or otherwise relinquishing a major part. He said, "with but few exceptions, the Indians were opposed to selling any part of their lands, as announced in their replies to the speeches of the Commissioner. Finally, however, many Tribes expressed their willingness to sell, but on the condition that they could retain Tribal Reservations on their present tracts of land." He was of the opinion that, rather than retain Tribal Reservations, the Indians should take up individual farms and thus become "domesticated." No consideration was given to the fact that many such groups had not been traditionally conditioned by their own ways of life to facilitate easy transition to an existence patterned after that of the White farmer.

At first, the stream of White migration had been content to push the Indian before it, but by 1850 it had begun to bypass him, surrounding and engulfing him. The practice of removal and resettlement of Indian tribes on Reservations beyond the frontier was rapidly becoming impractical, a fact which only intensified the question of what to do about the Indian. Further, as the White men swarmed westward, the conviction grew, on the part of the American public, that lands previously reserved to Tribes that had removed themselves from territory formerly held in the east, should be whittled down to a size commensurate with the actual needs of the group. "Reservations should be restricted so as to contain only sufficient land to afford them a comfortable support by actual cultivation," wrote Commissioner Denver in 1857, "and should be properly divided and assigned to them, with the obligation to remain upon and cultivate the same."

Up to the Civil War period, the national policy in dealing with Indian tribes was based on treaty, with the Tribes considered as quasi-independent nations. However, during and after the Civil War this policy was replaced with one based on the premise that Indians were objects of national charity and without legal rights. Writing in 1862, Secretary of the Interior Caleb B. Smith pointed out that Indian tribes have none of the elements of nationality, and that they reside within an area under the jurisdiction of the United States. "The rapid progress of civilization upon this continent will not permit the lands which are required for cultivation to be surrendered to savage tribes for hunting grounds," he stated. "Indeed, whatever may be the theory, the Government has always demanded the removal of the Indians when their lands were required for agricultural purposes by advancing settlements. Although the consent of the Indians has been obtained in the form of treaties, it is well known that they have yielded to a necessity to which they could not resist. A radical change in the mode of treatment of the Indians should, in my judgment, be adopted. Instead of being treated as independent nations they should be regarded as wards of the Government, entitled to its fostering care and protection. Suitable districts of country should be assigned to them for their homes, and the Government should supply them, through its own Agents, with such articles as they use, until they can be instructed to earn their subsistence by their labor."

During the period from 1863 to 1876, Indians were in the process of being established on Western Reservations, and the Commissioners turned their attention to problems of permanent policy and administration. The main question in connection with Indian affairs centered about the advisability of continued treaty making, the proper role of the military, reorganzation of the Indian Bureau, development of a means for individualizing and controlling the Indian, and the question of the present rights and the future prospects of the conquered people. The system of treaty making was abandoned in 1871[3], and was replaced by a system of agreements between the Government and the Indians. It was urged that even these be discarded since, in many instances, Tribal government had completely broken down. Indeed, under the budding policy of paternalism, power and authority had passed to the Agents sent to control the various groups, and to care for them as wards of the Government, with the result that Tribes no longer possessed many of the characteristics of independent political entities. Confined to their Reservations, the Indians were rapidly becoming almost totally dependent upon the Government, and that paternalistic relationship was being fostered as an answer to the problem of what to do with our Indian minorities. Where Indians did not immediately show themselves inclined to accept the paternalistic relationship between themselves and the Government, use of the military was sometimes advocated. In fact, in 1873, Commissioner Edward P. Smith urged that troops be made available on the Sioux Reservations "to enable the Agents to enforce respect for their authority, and to conduct Agency affairs in an orderly manner." And this in the face of a treaty with the Sioux in which the United States had agreed to send no troops beyond the Reservation line.

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[3] The first treaty between the United States and an Indian Tribe was that concluded with the Delaware Indians on September 17, 1778 (7 Stats., 13).

The Act of March 3, 1871 .(16 Stats., 556) provides in part: "That hereafter no Indian Nation or Tribe within the territory of the United States shall be acknowledged or recognized as an independent nation, tribe or power with whom the United States may contract by treaty: PROVIDED FURTHER, that nothing herein contained shall be construed to invalidate or impair the obligations of any treaty heretofore lawfully made and ratified with any such Indian Nation or Tribe.

With regard to the status of Indian treaties, the Supreme Court has held them to be substantially of no greater force or effect than an Act of Congress. In the case of Lone Wolf v. Hitchcock (187 U. S., 566) the Court held that: "The power exists to abrogate the provisions of an Indian treaty, though presumably such power will be exercised only when circumstances arise which will not only justify the Government in disregarding the stipulations of the treaty, but may demand, in the interest of the country and the Indians themselves, that it should do so. When, therefore, treaties were entered into between the United States and a tribe of Indians it was never doubted that the power to abrogate existed in Congress, and that in a contingency such power might be availed of from considerations of government policy, particularly if consistent with perfect good faith toward the Indians." (From Bulletin 12, Office of Indian Affairs, 1926 reprint, "The American Indian and Government Indian Administration," by Assistant Commissioner Edgar B. Merritt.)

When the Indian was established on one of the Reservations his movements were confined to that area, but insofar as possible he could retain his traditional way of life. He could retain the religious, linguistic, and other cultural characteristics that served to distinguish him, but often he found it impossible to gain his livelihood after the traditional pattern. The hunting tribes of the Great Plains, for example, could no longer follow the herds of buffalo. As a result, the Government found it necessary to feed the Indian populations on many Reservations to prevent their starvation and preclude the possibility of rebellion. The Indians, of course, soon came to be dependent upon direct relief and, in the words of a contemporary, "seeing no future for themselves in the area to which they had been relegated, they passed their time in idleness." Many knew nothing of agriculture, and the old economic base had been extinguished with such suddenness that they did not have the time necessary for gradual adjustment to the changed environment. For obvious reasons the weak and impotent tribes received the least, while those groups that still possessed a war potential were the most generously appeased.

In 1872, after the so-called "feeding" policy had been in effect for about three years, Commissioner of Indian Affairs Walker defended it and defended the Reservation system by pointing out that "there is no question of national dignity, be it remembered, involved in the treatment of savages by civilized powers. With wild men, as with wild beasts, the question of whether in a given situation one shall fight, coax, or run, is a question merely of what is easiest and safest." He discussed further the function of the Reservation to the effect that "the Indians should be made as comfortable on and as uncomfortable off, their Reservations as it was in the power of the Government to make them, that such of them as went right should be protected and fed, and such as went wrong should be harassed and scourged without intermission. Such a use of the strong arm of the Government is not war, but discipline."

Traditional land tenure on the part of Indian groups was not based on individual ownership of specific tracts of land. More generally, Indians occupied areas of land as tribal entities, holding or controlling the areas in common. When such tribes were settled on reservations, they continued to utilize the land in common. On the other hand, the White men, feeling a pride in individual ownership, and being historically conditioned to intensive, individual agricultural pursuit as a basic way of life, were convinced that the Indian could not be "civilized" until he too came to share that pride of individual ownership, and adopted intensive cultivation of the soil as a basic way of living. The belief was held that the Indian should be "individualized" as rapidly as possible through a process of allotment of the Reservation lands in severalty, to thus break up the communally held Reservations into individual holdings. This technique for "individualization" of the Indian allowed, as a by-product, a considerable amount of surplus land in many instances, available for other purposes after Indian applicants on the Reservations had received their individual allotments. In fact, the reduction of Indian Reservations gained momentum to such an extent that, in the year 1890 alone, more than 17,400,000 acres, or about 1/7 of all remaining Indian land, was acquired by the Federal Government. The process of breaking up the reservations was justified on the basis that those areas had originally been given to the Indians to meet their needs as non-agricultural peoples, and that they no longer required such large areas in view of the emphasis being placed on intensive agriculture.

The problem of the consolidation and sale of surplus lands on Reservations had already appeared in 1872. Commissioner Walker stated that "the Reservations granted heretofore have been generally proportioned, and rightly so, to the needs of the Indians in a roving state, with hunting and fishing as their chief means of subsistence, which condition implies the occupation of a territory far exceeding what could possibly be cultivated. As they change to agriculture, however rude and primitive at first, they tend to contract the limits of actual occupation. With proper administrative management the portions thus rendered available for cession or sale can be so thrown together as in no way to impair the integrity of the Reservation. Where this change has taken place, there can be no question of the expediency of such sale or cession. The Indian Office has always favored this course, and notwithstanding the somewhat questionable character of some of the resulting transactions, arising especially out of violent or fraudulent combinations to prevent a fair sale, it can be confidently affirmed that the advantage of the Indians has generally been subserved thereby."

However, despite the magnitude of the Indian problem, for many years the Government had sought to economize by providing very low salaries for Indian Service personnel, and very small appropriations for Education and other services. In 1882, Commissioner Price urged that the Government pay the salaries necessary to attract capable men to the Administration of Indian Affairs. "Paying a man as Indian Agent $1200 to $1500, and expecting him to perform $3,000 to $4,000 worth of labor, is not economy," the Commissioner pointed out, "and in a large number of cases it has proven to be the worst kind of extravagance." In the same report Mr. Price speaks of education to the effect that "if one million dollars for educational purposes given **now** will save several million in the future, it is wise economy to give that million at once, and not dole it out in small sums that do but little good."

Writing in 1881, Commissioner Hiram Price, a businessman, expressed a viewpoint quite counter to that expressed by most of his predecessors in terms of educational philosophy, and one which is remindful of a period a half century later. Commissioner Price said "It is as common a belief that the boarding should supersede the day school as it is that training schools remote from the Indian country ought to be substituted for those located in the midst of the Indian. But I trust that the time is not far distant when a system of district schools will be established in Indian settlements which will serve not only as centers of enlightenment for those neighborhoods, but will give suitable employment to returned students, especially the young women, for whom it is especially difficult to provide."

The General Allotment Act became law on February 7, 1887 and, as we mentioned above, a great deal of Indian land was soon lost. Even in those times there were men who opposed the Act on the ground that allotments might be forced upon many Indians before they were ready for such a drastic change. Actually, the abortive attempt at "individualization" through the process of allotment fell far short of achieving the purpose for which it was conceived.

In 1889, Commissioner Morgan set forth several points of policy to the effect that (1) The Reservation system belongs to the past, (2) Indians must be absorbed into our national life, not as Indians, but as American citizens, (3) The Indian must be "individualized" and treated as an individual by the Government, (4) The Indian must "conform to the White man's ways, peaceably if they will, forceably if they must," (5) The Indian must be prepared for the new order through a system of compulsory education, and (6) The traditional society of Indian groups must be broken up.

In 1905 Commissioner Leupp pointed up the need for education as a means of severing the individual Indian from his Tribe, and from the Government, and setting him upon his own feet. Manual training was the basis of Commissioner Leupp's policy, with enough of the "three R's" to get by.

Allotments to individual Indians were made in such a manner that the allottee was prevented from alienating the land during a 25-year trust period, at the end of which time he was to receive a patent in fee. However, an Act of 1906 empowered the Secretary of the Interior to issue a patent in fee before the end of the trust period if the Indian applicant was shown to be competent. Each application for a patent had to be considered on its own merits and on the basis of a report from the Agency Superintendent concerned. However, during the first three years following passage of the law, more than half of the recipients of patents sold their land and spent the proceeds, leaving themselves destitute. To correct the situation and safeguard the Indian land base, a policy was introduced by Commissioner Valentine in 1911 whereby more rigid proof of "competency" was required. To provide the necessary proof, competency commissions were established and Superintendents were asked to submit lists of all Indians of one-half or less Indian blood who were able bodied and mentally competent. It had been proposed to immediately grant patents in fee to all such individuals, and to persons of more than one-half Indian blood provided they were adjudged competent. This policy was hailed as a new era in Indian administration. "It means that the competent Indian will no longer be treated as half ward and half citizen. It means reduced appropriations by the Government and more self respect and independence for the Indian. It means the ultimate absorption of the Indian race into the body politic of the nation. It means, in short, the beginning of the end of the Indian problem." In those terms Cato Sells, Commissioner of Indian Affairs in 1917, eulogized the new policy.

Following the first world war there was a reversal in the policy of issuing patents in fee to anyone of one-half or less Indian blood without further proof of competency, and a more rigid system was introduced.

Commissioner Burke, in his report dated 1922, stressed the need for education. He observed that "probably States should ultimately assume complete responsibility for the Indians within their borders, but pending that time there is much to be done by the Federal Service." Under Commissioner Burke an industrial survey of all Reservations was inaugurated. This survey was the forerunner of a more comprehensive study to be undertaken a few years later for the purpose of developing for each Reservation a definite program, adapted to meet the specific requirements of the group, and designed to make each of the Tribes self supporting. It was a great departure from the previous system of extending a single general policy over all Indian Tribes regardless of whether or not it fit their needs and circumstances.

During the period 1926-28 the Institute for Government Research carried out a survey of social and economic conditions of the Indians, commonly known as "The Meriam Report," after Lewis Meriam, the technical director of the survey staff. The investigators described what they found on the many Reservations, analyzed prevailing policy in terms of their findings, and made positive recommendations which were basic to the new Indian policy that was to follow. Among other things, they stressed the need for a realistic educational program adapted to the problems of Reservation life, the need for sustained and coordinated economic planning and development, the need for more carefully chosen, better paid personnel, the strengthening of community life, and clarification of the law and order function on Indian Reservations.

Prevailing policy at the time of the Meriam Survey, in connection with Education, was predicated on the premise that the advancement of Indian groups could be best accelerated by removing the Indian child from his home environment, breaking his ties with his family, and educating him in a boarding school where only English would be spoken, and where the child might receive instruction in the three R's and in manual training. The Meriam Committee found that the school day in most such boarding schools was theoretically devoted half to academic studies and half to manual training. However, in many instances, the "manual training" was found to be actually composed of institutional labor. By utilizing small children to do the more or less heavy work of gardening, kitchen work, janitorial labor, etc., and by paying extremely low salaries to the school staff, it was possible to operate such institutions on a very low budget.[4]

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[4] The Act of April 30, 1908 (35 Stats., 72) limited the per capita cost of boarding schools to $167 per year and this limitation was not relaxed until 1918. In 1926 the per capita cost was $225 per year, and in 1932 this allowance was raised to $345 for schools of 200 or less enrollment and $300 if the enrollment exceeded 500 and later $50.00 additional was allowed for all pupils in grades above the sixth. At present, in 1955, the allowance for Community Boarding Schools on the Navajo Reservation averages $705, while that for the larger Boarding Schools averages $835. This increase in per capita allowance eliminates the parsimony and the need which characterized the Boarding Schools of less than a half century ago, to depend on the children for a large part of the necessary institutional labor; and it vastly improves diet and other opportunities for modern Boarding School children. In fact, one of the explicit justifications for raising the allowance in 1932 was stated as "the employment of labor to relieve children of excessive institutional drudgery." (From "Indian Administration Since July 1, 1929," by Commissioner of Indian Affairs C. S. Rhoads and Ass't Commissioner J. Henry Scattergood.)

The Meriam Report, published in 1928, provides some insight into the Boarding Schools of less than 40 years ago. On page 327 the survey committee states that "The average allowance for food per capita is approximately eleven cents a day, exclusive of the value of food secured from the school farm. * * * Malnutrition was evident. They (the pupils) were indolent and when they had the chance to play, they merely sat around on the ground, showing no exuberance of healthy youth."

Further, and with reference to institutional labor, the Meriam Committee stated on page 375 of their report "If the labor of the Boarding Schools is to be done by the pupils, it is essential that the pupils be old enough and strong enough to do institutional work * * * The institutional work has to be done, in part at least, by very small

> children * * * children, moreover, who according to competent medical opinion, are malnourished. * * * In nearly every Boarding School one will find children ten, eleven and twelve spending four hours a day in more or less heavy industrial work * * dairying, kitchen work, laundry shop. The work is bad for children of this age, especially children not physically well nourished; most of it is in no sense educational, since the operations are large scale and bear little relation to either home or industrial life outside * * * At present the half day plan is felt to be necessary not because it can be defended on health or educational grounds, but because the small amount of money allowed for food and clothes makes it necessary to use child labor.

They described teaching methods as antiquated, mechanistic and of a type which had been generally discarded years before in public school systems. It was their conviction that, although the boarding schools might impart some modicum of knowledge in terms of the three R's, they failed to educate in the broader sense of preparing the Indian child for his place in the society in which he would be expected to live. Further, the Meriam Committee expressed the opinion that the boarding schools as they found them denied the established role of the family in the development of personality, and ignored the necessity on the part of the child for parental guidance and affection. They found the general policy and objectives of Indian Education to be those of attempted "de-indianization" through severance from family and reservation environment. The survey then recommended that children be educated in day schools located within the communities in which they lived in order that they might benefit from a more normal home life, and in order that the schools could thus reach beyond the child to influence the life and thinking of the total community.

Accordingly, in 1932, Commissioner Rhoads reflected the new trend in thinking when he observed that "the most significant feature of the year in Indian education was a determined effort to make the change from boarding school atendance to local day or public school attendance for Indian children." A year later Commissioner John Collier indicated that, in connection with education, his policy would be one of aiming at a "redistribution of educational opportunity for Indians, out of the concentrated boarding school reached the few and into the day school reaching the many. The boarding schools which remain must be specialized along lines of occupational needs of children of the older groups, or along those of the need of some Indian children for institutional care. The day schools must be worked out on lines of community service, reaching the adult as well as the child, and influencing the health, the recreation, and the economic welfare of their local area."

The Meriam Survey had described the tragic results of the allotment system whereby Tribal groups lost so much of their land base, and the investigators, found a great deal of sentiment expressed by the Indians themselves in favor of continued wardship on the part of the Federal Government. In connection with Indian lands, Commissioner Collier said that "the allotment system has enormously cut down the Indian land holdings and has rendered many areas, still owned by Indians, practically unavailable for Indian use. The system must be revised both as a matter of law and practical effect. Allotted lands must be consolidated into Tribal or corporate ownership with individual tenure, and new lands must be acquired for the 90,000 Indians who are landless at the present time. A modern system of financial credit must be instituted to enable the Indians to use their own natural resources. And training in the modern techniques of land use must be supplied Indians. The wastage of Indian lands through erosion must be checked." Commissioner Collier's social and economic policies were, to a large degree, formally incorporated into the Indian Reorganization Act which became law on June 18, 1934.

From 1922 on, the emphasis on education as a basis for solution of Indian social and economic problems grew, and the policy of exclusive control of Indian affairs by the Federal Government declined. In his 1928 report, Commissioner Burke stated that "It is hoped that closer cooperation may be established between states having Indian populations and the Federal Government in dealing with questions of education, health and law enforcement."

Five years later, with reference to reorganization of the Indian Service, Commissioner Collier, in his 1933 report, expressed the view that "a decentralizing of administrative routine must be progressively attempted. The special functions of Indian Service must be integrated with one another and with Indian life, in terms of local areas and of local groups of Indians. An enlarged responsibility must be vested in the Superintendents of reservations and beyond them, or concurrently, in the Indians themselves. This reorganization is in part dependent on the revision of the land allotment system; and in part it is dependent on the steady development of cooperative relations between the Indian Service as a Federal Agency, on the one hand, and the states, counties, school districts, and other local units of government on the other hand."

In 1940 Joseph C. McCaskill, an Assistant Commissioner, summed up the trend in Indian administration in a paper entitled "The Cessation of Monopolistic Control of Indians by the Indian Office" with the statement that ". . . we see the Indian Office divesting its authority into three directions; first among other Agencies of the Federal Government which have specialized services to render. Second among the local state and county governments, which are much more closely associated with the problems in some areas than Washington can be; and finally among the tribal governments which have organized governing bodies, and which expect eventually to take over and manage all the affairs of Indians. Perhaps thus, but not at once, it may be found possible to cease special treatment, special protective and beneficial legislation for the Indians, and they shall become self-supporting, self managing, and self-directing communities within our national citizenry."

The new stress was against uniformity of policy and planning and in the direction of a maximum of local adaptation, both of method and goal. It was the beginning of an approach to Indian policy and planning based on the premise that each Tribe presents special problems which cannot be successfully attacked and solved through a general plan applied universally to all Indian groups.

Following World War II, pressure for the decentralization of Indian administration and the spreading of functions formerly held by the Indian Office grew to include many State and Federal agencies not previously concerned, including State Departments of Public Welfare, State Departments of Public Instruction, the U. S. Department of Agriculture, the State courts, etc. It was a stormy transition period, leading to the development of a policy aimed ultimately at the elimination of the Bureau of Indian Affairs.

In an address before the Western Governors' Conference at Phoenix, Arizona, on December 9, 1952, Commissioner Dillon S. Myer emphasized the fact that by Act of Congress in 1924, and by prior actions in previous years, all Indians in the United States were declared to be citizens and that, in accordance with the 14th Amendment to the Federal Constitution, they were therefore citizens, not only of the United States, but also of the states in which they reside.[5] Commissioner Myer pointed to the fact that the emphasis in Bureau policy and planning was on health, education and welfare services, with these three activities accounting for 60% of all Bureau employees; and on resources management which accounted for 16% of all employees.

Through the Johnson-O'Malley Act of 1934, which authorized the transfer of Federally appropriated funds to State and local agencies for services rendered, Bureau contracts with State Departments of Public Instruction, and with school districts, were made. In 1952 there were 52,000 Indian youngsters in public schools, and 31,000 of these were in schools receiving some supplemental assistance from federal funds. At the same time plans were going ahead rapidly for the transfer of additional Indian Service schools to local state school districts for operation. Commissioner Myer pointed to reduction of Indian Service hospitals in a number of areas through use of community and private hospital services, reduction of the Bureau's welfare services through the Social Security Act and the State Welfare Departments, and a start was made toward the transfer of agricultural extension, soil and moisture conservation, credit programs and road maintenance from the Bureau to other federal or to state agencies.

Congress urged, and the Bureau of Indian Affairs was looking toward, its eventual elimination through effective planning and programming. "We believe," Mr. Myer stated, "that the services now rendered by the Bureau of Indian Affairs can be transferred, step by step, either to the Indians themselves if the service involves handling their own economic affairs, or to other governmental agencies if it is the type of service normally rendered by government to citizens generally. This programming must be carried on in close cooperation with the Indians, both as individuals and as groups, as well as with responsible representatives of other governmental agencies—mainly state and local."

Commissioner Myer emphasized the policy of transfer to other agencies and organizations of services provided by the Bureau wherever and whenever such other agencies were equipped to provide those services as cheaply and efficiently as the Bureau. However, he stressed the fact that such transfer is not a simple mechanical process, and stated

[5] The act in reference was approved on June 2, 1924 (43 Stats., 253) and provides: "That all noncitizen Indians born within the territorial limits of the United States be, and they are hereby, declared to be citizens of the United States: PROVIDED, that the granting of such citizenship shall not in any manner impair or otherwise affect the right of any Indian to tribal or other property."

It is noteworthy that, prior to the passage of the Act in reference above, two thirds of the Indians in the United States were already citizens pursuant to Acts previously passed by the Congress, including the General Allotment Act of February 8, 1887 (24 Stats., 388), as amended by the Burke Act of May 8, 1906 (34 Stats., 182); by the Act of August 9, 1888; the Act of November 6, 1919 (41 Stats., 350) affecting honorably discharged Indian servicemen of World War I; the act of March 3, 1901, (31 Stats., 1447) conferring citizenship on all Indians of the Five Civilized Tribes of Oklahoma; and the Act of March 3, 1921 (41 Stats., 1250) with relation to the Osage Indians. In a decision involving the U. S. Vs. Nice (241 U. S. 598), the Supreme Court of the United States held "Citizenship is not incompatible with tribal existence or continued guardianship, and so may be conferred without completely emancipating the Indians or placing them beyond the reach of congressional regulations adopted for their protection. (Op. Cit. (3))

that "The kind of programming that is essential for further progress in this field is not a simple process and should not be taken lightly. It involves a thorough-going analysis of the problems both as they relate to functions and as they relate to individual bands, tribes and groups of Indians inhabiting specific geographic areas. Only after a thorough-going inventory and analysis of all problems are we ready to discuss how these problems might be solved and how certain responsibilities may be transferred from the Bureau of Indian Affairs to the Indians or to other governmental agencies."

During Commissioner Myer's administration, agreements were reached with more than 43 bands and groups of Indians in western Oregon, and with 115 identifiable bands and groups in California looking toward termination of Federal responsibilities and services as provided through the Bureau. Also, an overall inventory of problems as they relate to over 200 different Indian bands, tribes or groups was completed as a guide to withdrawal programming. These problems included the heirship status of some 18,000,000 acres of allotted lands, and those of managing tribal lands of which there are some 38,000,000 acres, much of it sub-marginal in quality. Poverty of many Indian groups and lack of health, educational and other training opportunities were also taken into account in withdrawal planning.

"It is a mistake to think of all Indians as an agricultural people," Commissioner Myer said. "Some are interested in agricultural pursuits while others would like to follow other vocations. Unfortunately we have not provided adequate opportunity for them to prepare for other vocations. ***Because of lack of education, lack of communications, language difficulties, and limited association with non-Indians, many Indians are afraid of the outside world."

Commissioner Myer advocated the initiation of a large scale training program in cooperation with state and private vocational schools to prepare Indian workers to take advantage of employment opportunities through relocation, and thus raise the living standards of surplus Indian population. As an alternative to such a program, he saw the necessity for indefinite subsidy by the Federal or state governments in social and welfare services on the crowded reservations.

For those who chose to remain on the reservations, Commissioner Myer saw the need for their social, economic and political development to raise reservation standards and to prepare them for leadership and intelligent cooperation with the Bureau in the development and execution of plans for the ownership, organization and management of their individual and group resources.

He advocated the step by step transfer to county and state agencies of those community services and governmental functions currently carried on by the Bureau, and stressed the point that "you cannot have trusteeship without paternalism *** We are faced with this dilemma. On the one hand, we are trying to encourage Indian individuals and groups to take over responsibility in the management of their own affairs; and on the other we are saddled with the tremendous responsibility of protecting Indian properties—a responsibility which has been vested in the Government not only by law, but as a result of many treaty commitments made down through the years. *** If the job of eliminating the need for the Bureau of Indian Affairs is to be done with honor, and in a manner that will inspire pride, we must concentrate on the difficult job of factual analysis and constructive programming. As we approach the task, let us bear in mind that treaties must not be broken and agreements must not be set aside, and that many obligations which have been assumed and which are not a part of treaties should be discharged before the final closing of the doors. I am thinking especially of the completion of irrigation projects in order to safeguard Indian water rights which now exist, as well as to develop good land resources to the point of greatest productivity. I am also thinking of completion of needed Indian road projects before they are turned over to the county and state Governments; and working out the transfer of responsibility for health, educational and other social services in a manner that will assure the continuation of these services to Indians on a basis of full equality with other American citizens."

In August, 1953, the 83rd Congress passed House Concurrent Resolution 108, establishing formally a policy of gradual elimination of Federal trusteeship and of the special services provided by the Bureau of Indian Affairs to Indians. The Resolution in reference provided that "It is the policy of Congress, as rapidly as possible, to make the Indians within the territorial limits of the United States subject to the same laws and entitled to the same privileges and responsibilities as are applicable to other citizens of the United States, to end their status as wards of the United States, and to grant them all the rights and prerogatives pertaining to American citizenship."

Withdrawal programming and the newly formulated termination policy of the Federal Government sent a wave of apprehension through many Indian Tribes, especially those who were most immediately concerned. Many groups, not yet prepared for life in a competitive society, felt that their security was threatened and made their sentiments heard. They feared that actions jeopardizing their future, if not their very survival, might be prematurely taken by Congress, and in some tribes there developed cleavages with factions that favored and factions that opposed termination of Federal wardship.

Shortly after his appointment as head of the Bureau of Indian Affairs, Commissioner Glenn L. Emmons personally visited Indians throughout the United States and Alaska. He reassured Indian groups everywhere that programming by the Bureau would be determined on the basis of individual Tribal and regional need, and that every opportunity would be afforded to them for consultation and close participation in all aspects of program planning affecting them. In fact, those aspects of policy were formally set forth in a letter of September 2, 1953, from President Dwight D. Eisenhower to the Commissioner, and the latter read the presidential letter to groups he visited in order to fully reassure them.

"***One thing that has impressed me above all others is the tremendous complexity and diversity of (Indian Affairs)," Commissioner Emmons said.[7] "I have realized for many years, of course, that there are a large number of Indian groups throughout the country who are quite different from the tribes which I have known more intimately in the area around Gallup. But I find that these differences are even more substantial than I had suspected. I am now more convinced than ever that you cannot apply the same yardstick to the more than 200 Tribal groups throughout

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[6] From address by Commissioner of Indian Affairs Dillon S. Myer, before the Western Governors' Conference—Phoenix, Arizona, December 9, 1952.

[7] Address delivered to Indian Tribal groups visited by Commissioner G. L. Emmons, Sept.-Oct., 1953.

the United States. Each Tribe has its own customs and traditions, its own set of problems, its own type of organization, its own past history of relations with the Federal Government, its own ideas about its future development. All of these things and many others will have to be carefully considered before we decide on a course of action with respect to any particular tribal group. *** Some of the broad outlines of Indian policy, of course, have been pretty well established. What we are trying to achieve essentially, as I see it, is a condition of parity or equality for the Indian people as compared with the rest of the population. This does not mean that we are expecting Indians to give up their own culture and be just like everyone else. But it does mean that we want to give the Indians the same opportunities for advancement — the same freedom and responsibility in the management of their properties — as other American citizens. *** I know that there are some Tribes who are ready and anxious to take over full responsibility for their own affairs at the earliest possible time, and that others will have to move along toward that objective much more slowly and gradually. *** I recognize that in many areas there is a real need for a continuation of the trusteeship and will be for several years. While I cannot, of course, guarantee that your government will always accept your recommendations on the termination of trusteeship, I can and do pledge that each tribal group will be fully consulted by the Bureau of Indian Affairs before we take any final action in recommending a termination program to Congress. *** In the meantime, however, we shall be continuing in our efforts to transfer our service responsibilities in the field of health, education, welfare and similar fields wherever possible to the agencies which normally provide these services for other citizens. I am greatly encouraged by the progress which has been made in placing Indian children in the public schools of the country, and I hope we can speed up and broaden our efforts in this direction. We should also be able to make similar progress eventually in health, welfare, law enforcement, road maintenance, agricultural extension, and home demonstration work, and along other lines. Every transfer of this kind which we make to a local agency is another step toward the day when the Indian people will be able to move forward without further restrictions or special services from the Federal Government."

Commissioner Emmons laid great stress on education as an essential prerequisite to successful preparation of Indian Tribes for the management of their own affairs, and as a foundation upon which to build a better society based on improved social and economic standards. The construction of public and Federal schools serving Indian children was accelerated, where necessary, and other steps were taken, as dictated by local requirements, to increase the enrollment of Indian children.

On the economic front, the Relocation Services program was expanded to reduce the pressure on meager reservation resources where such were inadequate to support the population, and an effort was made to provide increased industrial employment on and near reservations through the attraction of industries capable of using reservation manpower. Initially, in the latter regard, emphasis was placed on bringing such employment to communities located close to the reservations, and the program was designed to utilize Indian manpower exclusively; later, the emphasis was directed toward cooperative efforts by Indian and non-Indian communities to develop industrial employment opportunitiies for their mutual benefit.

As an adjunct both of relocation and industrial employment, a program was launched to provide vocational education for adult Indians.

The issue of termination continued to haunt Indian tribal groups although, in 1958, Fred A. Seaton, the Secretary of the Interior, assured the Indian people that he interpreted the intent of Congress, as expressed in House Concurrent Resolution No. 108, as a statement of ultimate objective—not an immediate goal." Mr. Seaton stated that his own position was that "no Indian tribe or group should end its relationship with the Federal Government unless such tribe or group has clearly demonstrated—first, that it understands the plan under which such a program would go forward, and second, that the tribe or group affected concurs in and supports the plan proposed. *** under no circumstances could I bring myself to recommend the termination of the Federal relationship with any Indian tribe in this country until the members of that tribe have been given the opportunity of a sound and effective education. To me it would be incredible, even criminal, to send any Indian tribe out into the stream of American life until and unless the educational level of that tribe was one which was equal to the responsibilities which it was shouldering."

During the period from 1953-1960 the emphasis of the Federal Government in the field of Indian Affairs was placed primarily on the objectives of universal education for Indian people, utilizing the public schools to the maximum extent possible, and on the attainment of economic parity for the Indian minorities throughout the country, primarily through a shift to increased dependency on off-reservation resources.

Tribes were encouraged to improve and expand the management of their own affairs, and to help themselves to the greatest extent possible. On April 12, 1956, the Commissioner issued a memorandum addressed to all Area Directors and Superintendents under the title "Programming for Indian Social and Economic Development." In this memorandum the policy of the Bureau and the mechanics and procedures to be utilized in implementing Federal Indian policy were delineated.

"In this memorandum," the Commissioner stated, "I desire to impress upon Agency and Area personnel the need to come to grips with the basic long-range problems in each tribal situation which presently impede the betterment of the Indians' economic status and living standards, hamper the provision of full educational opportunities for their children, and obstruct the improvement of their health conditions. It is not enough for us to go on from day to day just providing certain services and carrying out our trust responsibilities. We must sit down with the Indian people and reach a common understanding and mutual agreement upon the means and methods for their reaching the stage where they will have developed the self-reliance necessary to conduct their personal affairs with the same degree of independence as other American citizens.

"To implement this, I am herewith placing the major responsibility upon the Bureau field personnel to assume the initiative in this broad field of programming with Indian groups. Herein are discussed the salient points of policy and procedures to offer some guidelines for your operations. It is requested that all members of Area and Agency staffs be fully briefed on its contents; that it be made available to any and all Indian groups, and that copies thereof be made available to any interested official of the state or local subdivisions thereof.

"Fundamentally, I wish to emphasize the importance of developing forward-looking programs, in written form, through the consultation process at each of the tribal jurisdictions. By the term **consultation process** I mean making a sincere and sympathetic effort to formulate and establish the interests and aims of the Indian people through the process of providing them with a complete and unhampered opportunity for an expression and development of their views and giving the fullest possible consideration to the desires and objectives of each tribe, group, or band. In those cases where there are good and compelling reasons for not developing a program which complies with the tribal request or recommendations, it means explaining carefully and clearly just what those reasons are and why, from the Government standpoint, these differences seem to be important.

"Cooperatively with the Indian people we are essentially seeking

(1) To make a careful analysis of reservation populations, their probable increase, their needs, and their potentialities.

(2) To accurately inventory physical resources and possibilities for their improvement for the purpose of determining the number of people for whom these resources can provide a decent living.

(3) With the cooperation of the Public Health Service to secure adequate health coverage to reduce wasted human resources.

(4) To provide through local and state educational systems, as well as directly through Bureau operated programs, adequate educational opportunities in basic and vocational fields benefiting the beginners through adults.

(5) Specific training and guidance programs to develop greater self reliance and to equip Indians to adjust to a competitive economic society.

(6) Improvement and conservation of physical resources.

(7) Development of supplementary sources of income through establishment of payrolls on or near reservations.

(8) To advise Indians of the economic opportunities available to them and to give adequate assistance within the limits of available appropriations to all desiring to seek these opportunities.

(9) Gradual assumption of functions performed by the Bureau either by the Indians themselves or as appropriate by agencies of the local, state, or Federal government.

"A good program is tailor-made to the needs, circumstances, and aspirations of particular groups and their individual members. There is no specific formula which will apply to all Indian groups. A good program is one which results from the desires of and fits the needs of a particular group of Indians. In whole or in part the program should, if possible, be the work of the Indians themselves. A good program is always one which involves state and local representatives as active participants in its making. State universities and other institutions and organizations are able and often willing to assist in technical planning problems.

"I emphasize the important thing is for each group to have as a goal, with or without legislation, the development of the group to the point where, from a realistic point of view, special services or assistance because of Indian status will no longer be necessary."

Although the policy expressed in the memorandum of April 15, 1956, remained in force through the closing years of the decade, its actual implementation in the form of well defined, formalized, long range programs met with very limited success, partly because program planning of this type was identified with termination by many Indian tribes.

Early in 1961, President Kennedy appointed Stewart L. Udall, a native of the State of Arizona, to the position of Secretary of the Interior. Deeply interested in Indian problems, and with firsthand knowledge of their depth and complexity, the newly appointed Secretary took a cautious approach to the development of policy and program in the field of Indian affairs. As an initial step, he appointed a Task Force on Indian Affairs composed of four men, widely experienced and knowledgeable in this field, to take a fresh look at the problem area and to develop recommendations upon which the policies and progams of the new administration might be based.

W. W. Keeler of Bartlesville, Okla., oil company executive and principal chief of Oklahoma's Cherokees, was named as chairman. The other members were Philleo Nash, former lieutenant governor of Wisconsin, who was subsequently installed on September 26 as Commissioner of Indian Affairs; James Officer, a University of Arizona anthropologist, now Associate Commissioner of the Bureau; and William Zimmerman, Jr., Assistant Commissioner of the Bureau from 1933 to 1950. John O. Crow, Acting Commissioner during the period of the study and now Deputy Commissioner, consulted with the Task Force and accompanied it on field trips.

Over a period of nearly five months the Task Force members traveled about 15,000 miles and met with representatives of nearly all the important Indian tribal groups throughout the country. Fifteen days of sessions with tribal representatives were held at Oklahoma City, Okla.; Albuquerque, N. Mex.; Tempe, Ariz.; Pierre, So. Dak.; Duluth, Minn.; Spokane, Wash.; and Reno, Nev. Special visits were made in the Dakotas to the Sisseton Reservation and Wahpeton Community; in Montana to the Crow, Northern Cheyenne and Rocky Boy's Reservations and the "Hill 57" community at Great Falls; in Nevada to the Pyramid Lake Reservation; in Florida to the Seminole Reservations; and in Northern California to the Eastern Cherokee Reservation. In addition to these field activities, numerous consultations were held in Washington, D. C., both with tribal representatives and non-Indians prominent in the field of Indian affairs.

The Task Force submitted its report to Secretary Udall in early July. Three long-range goals were proposed for the Bureau of Indian Affairs: (1) maximum Indian economic self-sufficiency, (2) full participation of Indians in American life, and (3) equal citizenship privileges and responsibilities for Indians. To accomplish these aims, the Report called primarily for greater stress on developing the human and natural resources on Indian reservations and decreased emphasis on termination of Federal trust and service responsibilities for Indians.

In its more important detailed recommendations the Task Force Report favored (1) more vigorous efforts to attract industry to reservation areas, (2) an expanded program of vocational training and placement, (3) improvement of credit resources for Indian tribal organizations and enlargement of the Bureau's revolving loan fund, (4) establishment of an Advisory Board on Indian Affairs composed of both Indians and non-Indians prominent in the field, (5) negotiations with States and counties, and resort to the courts where necessary, to assure off-reservation Indians the same rights and privileges as other citizens, (6) collaboration with States and tribes to bring tribal law and order codes into conformity with those of States and counties where the reservations are located, (7) acceleration in the adjudication of cases pending before the Indian Claims Commission, and (8) greater use of judgment funds to finance tribally planned development programs.

At a press conference on July 12 Secretary Udall endorsed the main outlines of the Report and established it as a basis for Indian Bureau operations under the Kennedy Administration. As this is written (11-2-61) considerable progress has already been made in implementing the Report's major recommendations.

The group reemphasized the urgent need to develop plans and programs on the basis of active collaboration with the people they are designed to benefit, pointing out that "Basically, we must not forget that ours is a program which deals with human beings. We must have faith in their abilities to help themselves and be willing to take some risks with them."

At the same time, the Task Force urged a positive approach toward realization of the objectives of the Bureau of Indian Affairs, aimed as they are at the attainment of social, economic and political parity for Indian citizens. In this regard, the study group expressed the view that the Bureau, in the recent past, had over-emphasized the objective of **termination** of Federal services to Indians as a primary value in itself, and they recommended that the emphasis be placed instead on **development,** to thus ease the fears on the part of Indian tribes that Federal withdrawal might be premature. The position taken was that developmental programs designed to assist tribal groups to advance socially, economically and politically will, when complete, obviate the need for special Federal services to Indians, and the objective of self-sufficiency can more readily be reached by emphasizing the **means** for its attainment rather than its **end result.** In this context, the Task Force report made it clear that social, political and economic parity include not only full participation in American life and enjoyment of the privileges of citizenship by Indians, but also assumption of the responsibilities of citizenship. The responsibility of the States, counties and municipalities for the provision of services to Indians, wherever the latter are entitled to such benefits, was stressed by the Task Force, and it was pointed out in the report that Federal services should not duplicate State and local programs to the extent that the latter are applicable to Indians.

The Task Force stressed the urgent need for maximum development of the resources of Indian reservations, and urged that the Bureau play an active role, in cooperation with the tribes, in the conduct of necessary surveys and the development of master plans, as well as in the provision of technical assistance and in the securing of necessary capital. The report urged early action by the Department of the Interior, designed to attack the problem of fractionated allotments in the Indian country. It was recommended that legislation be developed and passed by the Congress to accomplish transfer of such allotments to the tribes, with adequate provision for the compensation of individual heirs; or, where such land areas do not fit into tribal land consolidation programs, it was recommended that they be offered for sale through open competitive bidding.

To provide necessary developmental capital, the Task Force recommended expansion of the revolving loan program for such purposes as education, housing, individual land improvement, and small business. For major tribal programs, the establishment of a Reservation Development Loan Fund was recommended, to be administered by the Department of the Interior.

Although recognizing the fact that few Indians depend exclusively or primarily on arts and crafts for a livelihood, the Task Force pointed to the importance of revenue derived from this source, as well as the contribution Indian crafts work makes to Indian morale. It was strongly recommended that the promotion and development of arts and crafts be made an integral part of the educational program of the Bureau. In this connection, in the spring of 1961, the Santa Fe Boarding School was designated as the Institute of American Indian Arts.

Pointing to the fact that the educational level of Indians aged 25 years and over is only about one half that of the non-Indian population the Task Force urged that continued emphasis be placed on an educational program designed to accommodate all Indian children. The Task Force expressed its support of the policy of transferring responsibility in the field of education to the public schools whenever possible, recommending the improvement of existing physical plants and the construction of new facilities where necessary in the interest of facilitating transfer. Likewise, the Task Force stressed the need to bring Indian parents into closer participation in the conduct of school programs.

In view of the peculiar problems attaching to Indian education, and in view of rapidly changing educational policies in recent years, the Task Force recommended that an independent education survey be conducted at an early date.

In the field of welfare, the Task Force supported the long time position of the Bureau to the effect that off-reservation Indians are eligible for the same State and county services as are other inhabitants of the areas in which they live.

On September 21, 1961, Philleo Nash, the newly appointed Commissioner of the Bureau of Indian Affairs, addressed the delegates to the 18th Annual Convention of the National Congress of American Indians, at Lewiston, Idaho. Having served as a member of the Secretary's Task Force, Mr. Nash reviewed its procedures as well as its findings in considerable detail. Pointing to the fact that the study group had traveled 15,000 miles and talked with representatives of 200 organized tribes, the Commissioner observed that "although we are the authors of the report in the sense that we wrote the words down on paper, the ideas in this report are **yours.** To be sure, if we didn't agree with them, we wouldn't have made the recommendations."

Mr. Nash stressed the intent of the new administration to place maximum emphasis on programs designed for the development of natural and human resources on Indian reservations. "This is a developmental report," Mr. Nash told his audience, referring to the Task Force study. "This report deals with recommendations for programs that will provide maximum development and use of the natural resources which are our greatest asset. Perhaps even more important: the programs will provide for the development of people, and that, after all, is why we are in business. Ours is not a materialistic approach. We are interested in the wise use of natural resources so that the men, women and children who live on and near Indian reservations may have a better life. That means better housing, better health, more income, more education, better training, more and better opportunity for steady work at better wages."

Thus, the broad objectives of the new administration have been established, and within this pattern Indian policy and programs will take shape in the immediate future.

In retrospect, the history of the Office of Indian Affairs is a reflection of the development of our nation from colonial times to the present. Originally a special diplomatic service designed for the maintenance of peaceful relations between the struggling colonies and the powerful Indian Tribes surrounding them, it later became an intermediary between the Federal Government and the Tribes in the acquisition of new lands and in the problems attendant upon voluntary or forced emigration of the Indians westward. Both the demand for national expansion and the humanitarian desire to save the Indian from annihilation are reflected in the policy and practices of the past.

As the settlement of western lands shrank Tribal resources and destroyed traditional bases of livelihood, the Bureau of Indian Affairs gradually became the dispenser of charity on the reservations to prevent starvation and to exercise the duties of trusteeship assumed by the Federal Government toward its Indian wards. From a beginning in which the Bureau treated Indian Tribes as sovereign powers it rapidly became a potent factor in their internal affairs. In fact, the Bureau all but supplanted traditional Tribal organization with the personal government of politically appointed agents during the autocratic phase of its development. During the period of paternalism Bureau policy and planning ignored the cultural and other distinctions that applied to the many Indian groups and presumed to solve Indian problems by the imposition of a uniform program in relation to all Tribes.

Generally speaking, the policies, plans, procedures and attitudes adapted to the circumstances and motivations of one period were carried over to succeeding periods, and most of the vast array of laws, regulations, legal opinions and the like developed to regulate or facilitate Indian administration, especially during the autocratic phase of Bureau policy, remain in force to the present day. Even during the height of the paternalistic era there was pressure for the elimination of charity as the basis for survival of reservation Indians, and the institution of a program of education and resource development aimed at making the Indian people self-supporting. Pressures for the overthrow of the policy of paternalism culminated in the passage of the Indian Reorganization Act of 1934, under the terms of which Indian tribes organized under it gained the power of approval or veto over the disposition of all tribal assets; they were authorized to take over control of their own resources as rapidly as they could develop the leadership necessary to the direction of their own affairs; they were given the right to employ legal counsel, the right to negotiate with federal, state and local governments, and the right to be advised of all appropriation estimates affecting them before such estimates were submitted to the Bureau of the Budget and Congress. They were also assisted and encouraged in the development of representative tribal governments under tribal constitutions as an aspect of their reorganization.

In succeeding years the realization grew that the land base available to many Indian groups is insufficient in extent or quality to support the total population, and modern policy stresses not only the fullest possible development of the resources potential of Indian Reservations, but also it stresses diversification of Indian economy with a view to providing for the attainment of decent living standards on the part of our Indian citizens.

WESTERN NAVAJO SCHOOL AND AGENCY

(1901-1935)

(Tuba City, Arizona)

Separated from Navajo in 1901.

Years of Service	Name	Position Title
	(Shown as Western Navajo School)	
1901 - 1904	Milton J. Needham	Superintendent; School Superintendent and Special Disbursing Agent
1904 - 1907 (December, 1904 - November, 1907)	Matthew M. Murphy	School Superintendent
1907 - 1910 (November 23, 1907 - July 1, 1910)	Stephen Janus	School Superintendent
1910 - 1912	Clarence R. Jefferis	School Superintendent
1912 (March, 1912 - October, 1912)	Claude C. Early	Special Agent in Charge
1912 - 1914	William T. Sullivan	School Superintendent
1914	Walter Runke	School Superintendent
1920	Robert E. Burris	School Superintendent
1921 (February, 1921 - April, 1921)	Charles E. Coe	Special Supervisor in Charge
?	Charles L. Ellis	Special Agent in Charge
1921 - 1922	Byron A. Sharp	School Superintendent
1922	Harvey K. Meyer	School Superintendent
	(From 1923 shown as Western Navajo Agency)	
1923 - 1925	Harvey K. Meyer	Superintendent
1926 - 1932	Chester L. Walker	Superintendent
1932 - 1933	John E. Balmer	Superintendent
1934 - 1935	Francis J. Scott	Superintendent

On July 1, 1935, the Agency was consolidated with the Eastern, Northern and Southern Navajo, as well as the Leupp Agency, Charles H. Burke School, and part of the Hopi Agency (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

NAVAJO SCHOOL (ARIZONA AND NEW MEXICO)

(Fort Defiance, Arizona)

(1903-1922)

In July 1903, the Navajo Agency was divided and placed in charge of two superintendents, one to have charge of that part of the reservation south of the line drawn midway the reservation from Moqui east and west and to be known as the Indian Training School, Navajo Agency; the other to have that part from said line north to be known as the San Juan Indian Training School.

Years of Service	Name	Position Title
1903 - 1906 (August, 1903 - October, 1906)	Reuben Perry	School Superintendent
1906 (October, 1906 - November, 1906)	Sam B. Davis	Supervisor in Charge
1906 - 1908 (November, 1906 - July, 1908)	William H. Harrison	School Superintendent
1908 - 1922	Peter Paquette	School Superintendent;

See Navajo Agency (Arizona) (1923 - 1926)

NAVAJO AGENCY (ARIZONA)

(1923 - 1926)

Years of Service	Name	Position Title
1923 - 1925	Peter Paquette	Superintendent
1925 - 1926 (September, 1926)	August F. Duclos	Superintendent

Effective January 1, 1927, the Navajo Agency, Arizona, was changed to Southern Navajo Agency, Arizona.

SOUTHERN NAVAJO AGENCY (ARIZONA)

(1927 - June, 1935)

Years of Service	Name	Position Title
1927 - 1928	August F. Duclos	Superintendent
1928 - 1934	John G. Hunter	Superintendent
1934 - 1935	William H. Zeh	Acting Administrator in Charge. Northern Navajo Agency

On July 1, 1935, the Agency was consolidated with the Western, Eastern and Northern Navajo, as well as the Leupp Agency, Charles H. Burke School, and part of the Hopi Agency (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

SAN JUAN SCHOOL AND AGENCY (NEW MEXICO)

(July, 1903 - December 31, 1926)

In July, 1903, the Navajo Agency was divided and placed in charge of two superintendents, one to have charge of that part of the reservation south of the line drawn midway the reservation from Moqui east and west and to be known as the Indian Training School, Navajo Agency; the other to have that part from said line north to be known as the San Juan Indian Training School.

Years of Service	Name	Position Title
	(Shown as San Juan School)	
1903 - 1906	(No data)	
1907 - 1916	William T. Shelton	School Superintendent
1916 - 1917	Harold F. Coggeshall	School Superintendent
1917 - 1923 (September, 1917 -)	Evan W. Estep	School Superintendent
	(From 1923 shown as San Juan Agency)	
1923 - 1926	Albert H. Kneale	Superintendent

Effective January 1, 1927, the San Juan Agency, New Mexico, was changed to Northern Navajo Agency.

NORTHERN NAVAJO AGENCY (NEW MEXICO)

(January 1, 1927 - June 30, 1935)

Years of Service	Name	Position Title
1927 - 1928	Albert H. Kneale	Superintendent
1929 - 1931 (January, 1931)	Billie P. Six	Superintendent
1931	Ernest H. Hammond	District Superintendent in Charge
1931 - 1934 (July, 1931)	Ernest R. McCrary	Superintendent
1934 - 1935 (June, 1935)	William H. Zeh	Acting Administrator in Charge

On July 1, 1935, the Agency was consolidated with the Southern, Western, and Eastern Navajo, as well as the Leupp Agency, Charles H. Burke School, and part of the Hopi Agency (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

PUEBLO BONITO SCHOOL AND AGENCY (NEW MEXICO)

(1907 - December 31, 1926)

Became independent of Navajo in 1907.

Years of Service	Name	Position Title
	(Shown as Pueblo Bonito School)	
1907 - 1909 (April, 1909)	(No data)	
1909 - 1922	Samuel F. Stacher	School Superintendent
	(From 1923 shown as Pueblo Bonito Agency)	

1923 - 1926	Samuel F. Stacher	Superintendent

Effective January 1, 1927, the Pueblo Bonito Agency, New Mexico, was changed to Eastern Navajo Agency.

EASTERN NAVAJO AGENCY

(Crownpoint, New Mexico)
(January 1, 1927 - June 30, 1935)

Years of Service	Name	Position Title
1927 - 1934	Samuel F. Stacher	Superintendent
1934 - 1935 (June, 1935)	William H. Zeh	Acting Administrator in Charge, Northern Navajo Agency

On July 1, 1935, the Agency was consolidated with the Southern, Northern, and Western Navajo, as well as the Leupp Agency, Charles H. Burke School, and part of the Hopi Agency (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

NAVAJO EXTENSION

(Leupp, Arizona)
(1901 - 1908)

Navajo Indians within land withdrawn from sale and settlement by Executive Order of November 14, 1901, and generally known as the "Navajo Extension Reservation," with an "Additional Farmer" in charge.

Years of Service	Name	Position Title
1901 - 1902	(No data)	
1903	William R. Johnston	Additional Farmer
1904	Fred Allen	Additional Farmer and Special Disbursing Agent
1904 - 1908	Joseph E. Maxwell	Additional Farmer and Special Disbursing Agent

See Leupp School and Agency beginning in 1909.

LEUPP SCHOOL AND AGENCY

(Leupp, Arizona)
(1908 - June 30, 1935)

New Government School of Leupp opened January 4, 1909 for Navajo Extension.

Years of Service	Name	Position Title
	(Shown as School)	
1909 - 1911	Joseph E. Maxwell	Superintendent
1911 - 1914	Charles H. Dickson	School Superintendent
1914 - 1915 (March, 1915)	Thomas K. Aareon	Special Agent in Charge
1915 - 1922 (April, 1915)	Stephen Janus	School Superintendent

(From 1923 shown as Agency)

1923 - 1924	Stephen Janus	Superintendent
1924 - 1926	Harmon P. Marble	Superintendent
1927 - 1928	John G. Hunter	Superintendent
1929 - 1933	John E. Balmer	Superintendent
1933 - 1934 (September, 1934)	Ernest H. Hammond	Superintendent of Indian Schools in Charge
1934 - 1935 (June, 1935)	William H. Zeh	Acting Administrator in Charge

On July 1, 1935, the Agency was consolidated with the Southern, Northern, Western, and Eastern Navajo, as well as the Charles H. Burke School, and part of the Hopi Agency (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

CHARLES H. BURKE SCHOOL

(Fort Wingate, New Mexico)
(1925 - 1926)

Years of Service	Name	Position Title
1925 - 1929	Samuel A. M. Young	School Superintendent
1930 - 1933	Edward B. Dale	School Superintendent
1934	Leroy F. Jackson	School Superintendent
1935 - 1936	Herman Bogard	School Superintendent

(No data after 1936)

Effective July 1, 1935, the school was consolidated with the Southern, Northern, Western, and Eastern Navajo, as well as the Leupp Agency, and part of the Hopi Agency, (Navajo Indians under jurisdiction of the Superintendent) to form the Navajo Agency once more.

NAVAJO AGENCY (ARIZONA AND NEW MEXICO)

(Window Rock, Arizona)
(July 1, 1935 -)

Years of Service	Name	Position Title
July 1, 1935 - April 15,1936	Chester E. Faris	Superintendent
March 16, 1936 - May 31, 1942	E. Reeseman Fryer	General Superintendent
June 1, 1942 - June 30, 1949	James M. Stewart	General Superintendent
July 1, 1949 - November 30, 1949	Allan G. Harper	General Superintendent
1949 - 1953	Allan G. Harper	Area Director, Window Rock Area, Administrative direction from Area Office

(Organizational designation changed from Window Rock Area to Navajo Agency - 1954)

1954 - 1958 March 21, 1954 - August 31, 1958	G. Warren Spaulding	General Superintendent
September 27, 1959	Glenn R. Landbloom	General Superintendent

In 1955, by administrative reorganization of the Navajo Agency, five Subagencies were established, with a Subagency Superintendent responsible to the General Superintendent of the Navajo Agency for certain Bureau programs.

FIVE SUBAGENCIES - NAVAJO DISTRICT

(1955 - present)

Years of Service	Name	Position Title
Chinle, Arizona		
July, 1955 - October 31, 1960	Fred G. Maxwell	1955 - Asst. Superintendent 1956 - Subagency Supt.
October 31, 1960 - present	Russell Kilgore	Subagency Superintendent
Crownpoint, New Mexico		
July, 1955 - November, 1956	Arthur B. Colliflower	Assistant Superintendent Subagency Superintendent
October 31, 1960	Russell Kilgore	Subagency Superintendent
November, 1956 - September 30, 1960	Hobart A. Johnson	Subagency Superintendent
October 2, 1960 - present	Kent Fitzgerald	Subagency Superintendent
Fort Defiance, Arizona		
July, 1955 - present	Rudolph Zweifel	1955 - Asst. Superintendent 1956 - Subagency Supt.
Shiprock, New Mexico		
July, 1955 - present	Elvin G. Jonas	1955 - Asst. Superintendent 1956 - Subagency Supt.
Tuba City, Arizona		
July, 1955 - September 30, 1960	Marion A. South	1955 - Asst. Superintendent 1956 - Subagency Supt.
October 2, 1960 - present	Clint O. Talley	Subagency Superintendent

MOQUI SCHOOL

(Keams Canyon, Arizona)

(1899 - 1923)

In 1899 the Moqui School was separated from Navajo Agency. It was formerly known as Keams Canyon School.

Years of Service	Name	Position Title
1899 - 1904	Charles E. Burton	School Superintendent and United States Indian Agent
1904 - 1906	Theodore G. Lemmon	School Superintendent
1906 - 1910	Horton H. Miller	School Superintendent
1910	Abraham L. Lawshe	School Superintendent
1911 - 1919	Leo Crane	School Superintendent
1919 (October, 1919)	Robert E. L. Daniel	School Superintendent
1921 - 1923	Robert E. L. Daniel	School Superintendent

Changed to Hopi Agency (1923)

HOPI AGENCY

(Keams Canyon, Arizona)

(1923 - present)

Years of Service	Name	Position Title
1924 - 1933	Edgar K. Miller	Superintendent
1934	(No data)	
1935 - 1936	Alexander G. Hutton	Acting Superintendent
1936 - 1938	Alexander G. Hutton	Superintendent
1939 - 1942	Seth Wilson	Superintendent
1942 - 1947 (May, 1942 - September, 1947)	Burton A. Ladd	Superintendent
1948 - 1951	James D. Crawford	Superintendent
1951 - 1953	Dow Carnal	Superintendent
1954 - 1956 (May, 1954 - January, 1956)	Clyde W. Pensoneau	Superintendent
1956 - present (February, 1956)	Herman E. O'Harra	Superintendent

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[9] Radio broadcast made by Fred A. Seaton, Secretary of the Interior, on September 13, 1958, at Window Rock, Arizona.

OFFICERS OF THE NAVAJO TRIBAL COUNCIL

1923-1955 ([1])

DATES	CHAIRMAN	VICE-CHAIRMAN
1923-28	Chee Dodge	None
1928-32	Deshna Chischillige	Maxwell Yazzie
1932-36	Thomas Dodge	Marcus Kanuho
1937-38	Henry Taliman	Roy Kinsel
1938-42	Jacob C. Morgan	Howard Gorman
1942-46	Chee Dodge	Sam Ahkeah
1946-50	Sam Ahkeah	(Chee Dodge[2]) Zhealy Tso
1951-54	Sam Arkeah	(John Claw[3]) Adolph Maloney
1955-Present	Paul Jones	Scott Preston

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[1] Compiled by Albert Sandoval, Sr.

[2] Chee Dodge was elected by popular vote, but died before taking office; Zhealy Tso was elected by the Tribal Council to serve the unexpired term.

[3] John Claw resigned the office to which he was elected on August 15, 1952, and Adolph Maloney was elected by the Tribal Council to serve the unexpired term.

NAVAJO AGENCY STAFF

AGENCY HEADQUARTERS

GENERAL SUPERINTENDENT	Glenn R. Landbloom
Assistant to the General Superintendent	Robert W. Young
Office Services Supervisor	William H. McLemore
Assistant General Superintendent (Community Services)	Clarence Ashby
Agency Educationist	Thomas Tommaney
Agency Special Officer	Herman J. Fredenberg
Agency Relocation Officer	(Vacant)
Agency Social Worker	Beatrice L. Erickson
Assistant General Superintendent (Resources)	Kenneth W. Dixon
Agency Realty Officer	Marvin Long
Agency Road Officer	Jack C. Baker
Agency Forester	Reino R. Sarlin
Agency Land Operations Officer	Eddie M. Coker (Acting)
Agency Credit Officer	Edward H. Tixier
Subagency Superintendent, Tuba City Subagency	Clinton O. Talley
Administrative Officer	Ralph Ward
Subagency Superintendent, Chinle Subagency	Russel E. Kilgore
Administrative Officer	George H. Roberts, Jr.
Subagency Superintendent, Ft. Defiance Subagency	Rudolph Zweifel
Administrative Officer	John J. Bajart
Subagency Superintendent, Shiprock Subagency	Elvin G. Jonas
Administrative Officer	R. H. Rixford
Subagency Superintendent, Crownpoint Subagency	Kent Fitzgerald
Administrative Officer	Charles J. Romero

WINDOW ROCK FIELD OFFICE
U. S. PUBLIC HEALTH SERVICE
DIVISION OF INDIAN HEALTH

ASSISTANT AREA MEDICAL OFFICER	Charles S. McCammon, M.D.
Director, Field Health Services	James E. Bondurant, M.D.
Tuberculosis Control Officer	Angel Reaud, M.D.
Special Assistant to the Medical Officer in Charge	Van H. Dyer
Nurse Officer (Public Health)	Henrietta Smellow
Nurse Officer (Hospitals)	Ethel A. Todd
Medical Social Consultant	Inez M. Tyler
Educational Specialist (Health)	Elta Mae Mast
Medical Records Consultant	Betty G. Hill
Chief Sanitary Engineer	Albert L. Platz
Chief Construction Engineer	Clarence J. Feldhake
Chief Sanitarian	James A. Clark, Jr.
Public Health Nutritionist	Barbara S. McDonald

PHS INDIAN HEALTH FACILITIES

Hospitals

Medical Officer in Charge, Crownpoint Service Unit	Anthony S. Manfre, M.D.
Administrative Officer	Jack W. Russell
Medical Officer in Charge, Fort Defiance Service Unit	William R. Hardy, M.D.
General Services Officer	Jose F. Montoya
Medical Officer in Charge, Gallup Service Unit	Leo D. O'Kane, M.D.
Deputy Medical Officer in Charge	Robert L. Brutsche, M.D.
Administrative Officer	Harry V. Spangler
Medical Officer in Charge, Shiprock Service Unit	George N. Wagnon, M.D.
Administrative Officer	Robert E. Anderson
Medical Officer in Charge, Tuba City Service Unit	Harry S. Wise, M.D.
Administrative Officer	Carl Mestas
Medical Officer in Charge, Winslow Service Unit,	George B. DeBlanc, M.D.
Administrative Officer	Glenn K. Bobst

Health Centers

Medical Officer in Charge, Chinle Service Unit	Dean F. Tirador, M.D.
Administrative Clerk	Antoinette Cadman
Medical Officer in Charge, Kayenta Service Unit	Corning Benton, Jr., M.D.
Administrative Clerk	Blanche C. Gower
Medical Officer in Charge, Tohatchi Service Unit	Charles A Raper, M.D.
Administrative Clerk	Eugene Kaye

THE NAVAJO TRIBE

1. Executive Branch

Executive Offices	
Chairman, Navajo Tribal Council	Paul Jones
Vice Chairman, Navajo Tribal Council	Scott Preston
Executive Secretary	J. Maurice McCabe
General Counsel	Norman M. Littell
Assistant General Counsel	Joseph F. McPherson
Associate Tribal Attorney	Walter F. Wolfe, Jr.
Chief Legal Aid Advisor	Spencer K. Johnston
Supervisor, Land Investigation	Edward O. Plummer
Director, Public Relations and Information	John C. McPhee
Supervisor, Records Management	Angeline Allen
Public Services Division	
Director, Public Services	G. Warren Spaulding
Dept. Health, Education and Welfare	John Y. Begaye
Guidance and Counselling Officer	John C. Martin
Clothing Coordinator	Earl Johnny
Welfare Supervisor	Julian Jake
Community Development Department	Ralph Johns
Superintendent of Police	Patrick H. Nelson
Probation and Parole Officer	Abraham Plummer
Design and Construction Department	Robert Krause
Architectural Section	Wallace Wendell
Engineer Section	Lawrence Brewer
Construction Section	Henry Whipple
Resources Division	
Director, Resources	Ned A. Hatathli
Assistant Director, Resources	Lawrence Cooper
Farm Training Manager (Shiprock)	Clifford G. Hansen
Mammal Control Supervisor	Freeman Tabor
Tribal Enterprise Supervisor	Roger C Davis
Arts and Crafts Manager	Russ Lingruen
Nataani Nez Lodge, Manager	Cossette Davis
Window Rock Lodge, Manager	Louis Shepherd
Wingate Village, Manager	Edward Ration
Mining Engineer	Claro V. Collins
Oil and Gas Supervisor	Doswell Jamison
Superintendendent, Water Development	William Ramsey
Coordinator, Tribal Public Works	Arthur Hubbard
Trading Supervisor	Herman Lee
Superintendent, Navajo Tribal Utility Authority	P. W. Vanderhoof
Administration Division	
Director, Administration	Edward McCabe, Jr.
Director of Personnel	George L. Myers
Controller	Henry A. Hughes, (Acting)
Treasurer	Charles Goodluck, (Acting)

2. Legislative Branch

Tribal Council Committees

Budget Committee, Chairman	Scott Preston
Education Committee, Chairman	Dillon Platero
Health Committee, Chairman	Annie D. Wauneka
Welfare Committee, Chairman	James Bicenti
Police Committee, Chairman	Samuel Billison
Relocation Committee, Chairman	Hoskie Cronemeyer
Resources Committee, Chairman	Howard W. Gorman
Loan Committee, Chairman	Roger Davis
Trading Committee, Chairman	Ned Plummer
Tribal Parks Commission, Chairman	Sam Day, III
Tribal Utility Authority, Chairman	Frank W. Bradley
Election Committee, Chairman	Howard W. Gorman
Judicial Committee, Chairman	Howard McKinley
Youth Committee, Chairman	Dillon Platero
Committee on Alcoholism	Annie D. Wauneka
Tribal Fair Commission, Chairman	Howard W. Gorman
Chief Tribal Ranger	Charles Damon

Official Interpreter	Carl Beyale
Official Interpreter	John Todea
Legislative Secretary	Manuel Begay

3. Judicial Branch

Chief Justice	Murray Lincoln
Judge, Fort Defiance	Chester Hubbard
Judge, Fort Defiance	William D. Yazzie
Judge, Crownpoint	Tom B. Becenti
Judge, Shiprock	Virgil Kirk
Judge, Tuba City	Chester Yellowhair
Judge, Chinle	Paul Tso

4. Tribal Industries

Manager, Navajo Forest Products Industries	L. I. Holmes
Manager, Navajo Furniture Industries	William Huse

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